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UNIVERSITY OF ALBERTA

ANALYZING STRATEGIC ORGANIZATIONAL CHANGE IN THE ALBERTA MINISTRY OF ENERGY

BY

ERIC C. AXFORD

(C)

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements for the degree of Master of Business Administration.

FACULTY OF BUSINESS

Edmonton, Alberta
Fall 1995

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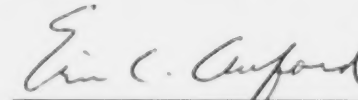

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September 26, 1995

ABSTRACT

The thesis will analyze the process of strategic organizational change under way in the Alberta Ministry of Energy. The change process will be analyzed using the organizational framework developed by Nadler and Tushman (1989), which includes both the development of an organizational model and a process for managing change. The approach is to define the organizational attributes of both the previous and desired organizations and assess the process of change as the organization attempts to move towards the desired organization. The focus will be on the dynamics of the change process in the 18 months after the change program was initiated. The analysis is holistic, reviewing attributes including strategy, structures, systems, people, work, power, culture, and leadership. The ultimate objective is to identify actions that may smooth and accelerate the transition from the previous organization to the desired one.

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I. INTRODUCTION

One of the few certainties that organizations face is the ever-present existence of change. This holds regardless of an organization's complexity, diversity or the nature of its work processes. It is a universal truth that all organizations face ongoing, continual change. Despite this simplistic realization, it is a relatively recent phenomena that the process of organizational change itself has come under study. However, the recognition of the existence of change itself is not enlightening, as change is ever-present. Instead, it is studying the design and management of organizational change that offers insights into improving performance.

A. Strategic Organizational Change - Defined

The term "strategic organizational change" has come to describe a particular magnitude of change that occurs in organizations. Strategic organizational change does not describe the ongoing incremental, fine-tuning or continuous adjustments required by organizations to changes in their everyday operating environments. Strategic organizational change is more than that, referring to relatively significant magnitude shifts in key organizational attributes like strategy, structures, processes and culture. Models of organizational change are typically formulated around these and other key organizational attributes, recognizing especially their critical interdependence. Pettigrew notes that:

> *the phrase 'strategic change' rests easily and credibly alongside the recent experience of many firms. Strategic change is descriptive of magnitude of alteration in, for example, the culture, structure, product market and geographical positioning of the firm, recognizing the second order effects, or multiple consequences, of any such changes and, of course, the transparent linkages between firms and their sectoral, market and economic contexts.* [1]

The interdependence of organizational attributes holds true for both internal ones (e.g. strategy, structure, process, culture, etc.) and external ones (e.g. environment, technical, political, economic, stakeholders, etc.). This interdependence also makes any reasonable study of strategic organizational change necessarily holistic. None of these organizational attributes in isolation is sufficient to understand, explain and most importantly manage the dynamics of the change process. Pettigrew describes the change process as the:

> *actions, reactions and interactions from the various interested parties as they seek to move the firm from its present to its future state.* [2]

Pettigrew's definition implies that strategic organizational change is somehow planned. Organizations embark upon strategic change programs purposefully to attain specific objectives and future organizational states. While often initiated in response to external pressures on the organization beyond its control, "initiation" itself implies a conscious, planned approach.

The turbulent economic, political and technical environment facing North American organizations in recent decades has enabled virtually all organizations to experience strategic organizational change. Some have succeeded in their change objectives. Many have failed. All have likely witnessed unnecessary disruption, confusion and uncertainty in the process, regardless of the degree of success or failure in meeting objectives.

Strategic organizational change is often messy, though it has become an ongoing and necessary component of modern organizations. Change is necessary to remain competitive in an ever-changing and increasingly complex business environment. However, change programs initiated, but left unattended, quickly become ineffective. Strategic organizational change cannot be managed by simply stating revised organizational strategies, structures or processes. Strategic organizational change is only

effective and sustained if all organizational attributes are carefully considered and managed throughout the change process. Pettigrew recognizes that strategic organizational change does not occur by accident but is a carefully planned exercise in content (what is it that requires change), context (why is the change required), and process (how will the change be executed):

> *the management of strategic organizational change involves consideration of not only the content of a chosen strategy, or even of the analytical process which reveals various content alternatives, but also the management of the process of change, and the contexts in which it occurs.* [3]

This thesis examines the strategic organizational change process recently initiated in the Alberta Ministry of Energy.

B. Strategic Organizational Change - Alberta Ministry of Energy

1. Roots of Change

Since the mid-1980s, the Alberta Government incurred annual budget deficits resulting in a growing accumulated debt. Over this period, the general population appeared to become increasingly concerned over the state of the Province's finances and general management style. By 1992, popular support for the government was very low with an election expected shortly.

In late 1992, the government leader stepped down and a new leader was selected, with a vision for reversing the fiscal trends in the Province. Over the first half of 1993, the government under its new leadership of Premier Ralph Klein laid out a long-term vision for getting its finances under control and initiated several preliminary change programs. In June 1993, a provincial election was held re-electing Ralph Klein's Progressive

Conservative government and providing the mandate to commence with full implementation of a major change program aimed at eliminating the government's annual budgetary deficits over a three-year period, through major reductions in spending.

2. Planning for Change

The fiscal problems of the Province were inherent to all areas of government, requiring a comprehensive change program impacting all government entities, including the Ministry of Energy which had actually already been undergoing considerable sustained budget reductions since 1989. In August, 1993, the government required all Ministries to develop fiscal restraint plans based on 20% and 40% budget reduction scenarios over a three-year time frame. This external budgetary shock would require a major revision to the manner in which the Ministry operated. In conjunction with the budget reduction scenarios, Ministries were also required to develop three-year business plans. Prior to that, fiscal planning beyond a single year was uncommon in government.

As the new planning process was proceeding, the Deputy Minister of the Department of Energy left for private sector opportunities after nearly 20 years with the government. Only two of the five reporting agencies, boards and commissions (ABCs) had permanent Chairmen in place, with the others utilizing "Acting" Chairmen. Now the Department of Energy also had an "Acting" Deputy.

The Ministry was required to develop a three-year business plan for meeting the fiscal restraints imposed upon it. This required a review of all aspects of its operations including strategy, structures, processes, work, staff, etc. A plan was developed to reach fiscal objectives over three years through a combination of change programs throughout the organization.

Budget reduction targets were to be met with a combination of activities to maximize the value and benefits of the energy and mineral industries in Alberta, and improve efficiency and productivity throughout the organization. The change program envisioned structural changes and significant process re-engineering and streamlining.

Internal discussions over the required change program were difficult given the fact that the previous organization was actually comprised of six independent and largely autonomous entities. Especially difficult were discussions over structural re-alignments as these challenged the very existence of certain former areas of the Ministry. It was suggested that one agency head even stated that the executive team would have to "sit the Minister down and explain that such budget reductions could not be met." The seriousness of the government's commitment to fiscal restraint had apparently not yet sunk in with certain members of the executive team.

After a few months of planning activity, contentious issues such as the need for continued independent status for Ministry agencies remained unresolved. Senior Ministry officials requested that the Minister engage outside consultants to review the outstanding issues with Ministry staff and relevant stakeholders and develop a single consolidated plan to bring forward for consideration by the government.

Late in 1993, management consultants were retained. After two months of interviewing staff and external stakeholders, the consultants submitted a report to the Minister recommending a new organizational structure in the Ministry. In January 1994, the Minister and government accepted the recommended changes, and the Energy Ministry became one of the first Alberta Government ministries to initiate a large-scale change program. Also in January 1994, a new Deputy Minister was appointed from outside the organization though from another government position.

In February 1994, after about 6 months of planning, the government announced a major re-structuring of its Energy Ministry (see Appendix 1, Government of Alberta News Release). This included the elimination of three independent reporting agencies (i.e. Alberta Oil Sands Technology and Research Authority - AOSTRA; Alberta Petroleum Marketing Commission - APMC; Alberta Oil Sands Equity - AOSE), a merger of the two quasi-judicial regulatory boards (i.e. Energy Resources Conservation Board - ERCB; and Public Utilities Board - PUB) and an internal re-alignment of the Alberta Department of Energy (ADOE) to improve overall focus, efficiency and to accommodate certain continuing activities previously provided by agencies. Organizational charts of the previous and re-structured Ministry are included in Appendix 2.

Later in February 1994, in conjunction with the Provincial budget, the government released the business plans developed for each Ministry, outlining more broadly the organization's strategy for meeting its government-imposed fiscal targets, including the re-structuring. The initial three-year business plan for the Ministry of Energy is included in Appendix 3.

This change program was the largest organizational change in the history of the Ministry. The change was expected to result in a down-sizing of 281 full-time employees or roughly 20% of Ministry staff (total staff of 1396 employees in 1993/94), and an annual budget reduction of about $22 million or 23% (total budget $95 million in 1993/94) by the end of the three-year period ending March 1997.

The change program would re-define the manner in which the Ministry's business was undertaken, impacting virtually all aspects of the organization. It should also be noted that organizational change was being implemented at a time of heavier work loads resulting from near record-setting activity levels in the energy industry and increasing demands on the Ministry from other external forces (e.g. environmentalists).

3. Implementing Change

After the announcements, change implementation activities began in earnest. The change program initiated in the Ministry of Energy was met with considerable enthusiasm and support at the political level and with external stakeholders. Internally however, the change program was met with very uneven levels of support and resistance.

Within the Department, 4 new core divisions (replacing 5 previous ones) were created immediately. Two existing Assistant Deputy Ministers (ADMs) were appointed to head two of the new divisions while the two remaining ADM positions were left vacant pending recruitment by open competition. It took 5 months for the positions to be filled.

Two other significant organizational changes occurred in conjunction with the release of the 1994-95 Provincial budget in February 1994. These included the privatization of the Department's Energy Efficiency branch and the termination of a program called the Southwest Alberta Renewable Energy Initiative. These events served to visibly demonstrate that change and downsizing were real, which had the effect of reinforcing early support from many external stakeholders and sent an important signal to the organization itself about the government's own commitment to change.

The re-structuring also included the creation of an Executive Committee, comprised of the Deputy Minister, Assistant Deputy Ministers, Executive Director of External Relations and Communications and some key financial staff. This Committee was to be the focal point for decision-making in the organization and was left largely responsible for the task of managing the change program. Unfortunately, this mechanism did not function well initially as two of the four ADMs were not announced until July/August 1994. In the absence of a well-functioning Executive Committee, change activities commenced in a more ad hoc, project-by-project manner with ultimate implementation oversight resting with the Deputy Minister or designated senior officials.

AOSE, the smallest of the independent agencies was reviewed immediately. The management consultants were retained to assist the merger process. Within 45 days of the re-structuring announcement, the activities of the agency were successfully amalgamated into the Department and 10 of 12 AOSE staff, including the Chairman, were laid off with severance packages.

AOSTRA's amalgamation into the Department of Energy was largely delayed until the selection of the new Assistant Deputy Minister, which did not occur until July 1994. The merger process was slower than anticipated given the very different cultures of the merging entities. AOSTRA itself had strong internal competing cultures that had developed largely around its geographical bases in Calgary and Edmonton. As the process proceeded into the fall of 1994, the Government announced the creation of a new Science and Research Authority, which created some uncertainty within the organization as to the role of the new Division relative to the role of the new Authority. This external event, together with the already slow rationalization process under way created an important impediment in the early achievement of organizational objectives in this area. This uncertainty also contributed to delayed establishment of the industry-led Energy Research Council, which was to strategically guide the Ministry's affairs in the research area. Ultimately, an area identified as a priority in the re-structuring lagged behind some other less critical change aspects.

APMC regulatory functions were structurally merged into the Department immediately. However, the cultural and process differences in the merging entities played a large role in delaying the achievement of the desired organizational objectives. Certain reporting structures were not always followed as designed, challenging organizational authority, power and leadership norms. APMC crude oil marketing activities were reviewed to assess the feasibility of allowing the private sector to deliver the service. Intra-ministry task forces were established to work with industry on a review, expected to be completed with decisions implemented by March 31, 1995. The process was unable to jointly

resolve certain fundamental issues and an independent analysis was required to conduct further review, highlighting certain problem-areas for the Ministry in the areas of internal project management, accountability, internal communications and effective industry consultation. The strong independent culture at the former agencies also played a role in influencing these individual change projects.

The merger of the regulatory boards was not immediately pursued pending the appointment of a Chairman. The ERCB had recently developed its own re-structuring plans which did not account for the Ministry's overall plan including the merger of the ERCB with the PUB. The ERCB was frustrated that the Ministry's re-structuring was delaying or altering its own plans. It was expected that a Chairman would be selected after a few months and would initiate and lead the change process at the new AEUB. Legislation creating the new entity was developed, though not proclaimed until the merger could be pursued by the new Chairman. An appointment process led by the government's central Personnel Administration Office proceeded though did not identify a successful candidate. Rumours of possible Chairmen, combined with high profile ERCB regulatory decisions highlighted the lack of a permanent Chairman.

Eight months after the announced re-structuring, the Government announced the appointment of a former Minister to the position of AEUB Chairman. The appointment met strong resistance from most stakeholders including the energy industry, environmental community and the general public. A week later, the Premier announced that the appointment would not proceed to avoid creating controversy around a critical regulatory process. A new selection process was launched, led by external executive search consultants, bringing further months of delay to initiation of certain change objectives. In February 1995, a Chair for the AEUB was announced.

In addition to re-structuring initiatives, much of the change program revolved around re-engineering and streamlining formal and informal processes within the Ministry. In the

first year of implementation, progress was certainly made in some areas, notably a review of the Ministry's regulatory framework and re-visiting certain management processes. Overall though, there was a general feeling that change activities were not yet having their intended effect.

4. Early Results

By December 1994, 11 months after the change program was announced publicly, about 18 months since the detailed planning stages commenced, and 2 years since the change in government leadership, the organization displayed several symptoms of struggling effectiveness including:

- delays in certain re-structuring initiatives (e.g. Board merger, effective APMC integration and crude oil marketing privatization, formation of the Energy Research Council and Deputy Minister's Industry Advisory Council),

- struggling Ministry business issues management and decision-making processes (e.g. errors, omissions and delays in business issue analysis, increasingly inconsistent use of established decision-making processes),

- declining effectiveness in Ministry information flow and preparation of correspondence (e.g. sometimes ineffective industry consultation, internal correspondence increasingly delayed and inconsistently prepared and reviewed),

- recognition of weak morale throughout the Ministry from internal organizational uncertainty and government-wide factors including a pay freeze since 1990, 5% salary rollback in 1994 and increased workloads with fewer staff,

- recognition of a tired and sometimes frustrated executive team (e.g. increased conflict among executive team, increased anecdotal remarks about workload, extreme overtime requirements),

- growing mythology in the organization of perceived concerns by pockets of stakeholders over recent Ministry performance and effectiveness (e.g. incomplete status of certain Ministry initiatives).

In the first 18 months of the change program, the Ministry expended considerable energy, especially at senior levels, at implementing change. While certain progress and success was attained, there was also a growing feeling in the organization that change was not proceeding as smoothly or quickly as expected, with consequent effects of reduced organizational effectiveness and sub-optimal performance.

Strategic organizational changes are complex, difficult and often messy. By December 1994, there was clearly still much effort required to achieve organizational objectives. An important milestone in re-focussing energy to achieving change objectives is the recognition of a struggling change program by the Ministry executive. It appears that this recognition had occurred by the end of 1994.

These consequences of change come as no surprise. Such examples of struggling change initiatives are not at all uncommon in organizations undergoing strategic organizational change. It is important to recognize that the process of change is a dynamic ongoing one, and typically takes several years to reach desired organizational objectives.

Large scale change must be carefully managed and sufficiently flexible to recognize impediments to change objectives, and adjusted accordingly to minimize the negative impacts of change on organizational effectiveness during the transition. In doing so, the organization may improve the probability of reaching its stated organizational objectives.

This thesis will examine the process of strategic organizational change under way in the Alberta Ministry of Energy and recommend actions that may assist the organization in achieving a smoother and accelerated transition to the desired state.

C. Research Methodology

Research methodology is a combination of literature surveys, personal observation and in-person interviews and feedback from key Ministry staff. The analysis is focussed mainly on the 18-month period after the strategic organizational change mandate was reinforced (provincial election in June 1993).

A **literature survey** was undertaken. This included works emphasizing a broad "macro", or holistic approach to organizational change management, as well as more component-specific literature with a "micro" focus on individual component parts of change models. Examples of component parts include strategy, structure, process, leadership, authority, power, culture and crisis management. The literature surveyed is included in the Bibliography. After reviewing a subset of available organizational change-management literature, a particular framework was selected for analysis.

The research methodology also emphasizes **personal observation.** The author was employed as the Executive Assistant to the Alberta Minister of Energy throughout the period examined. As such, the author had first-hand involvement and exposure to most aspects of the change program, especially strategic planning. The position of Executive Assistant provided a unique, broadly-based perspective on the change program not available to other organizational insiders or external stakeholders.

Recognizing potential bias in personal observation, and possible information gaps on detailed implementation aspects of the change program, several **informal interviews with Ministry staff** were undertaken to test and validate the author's perceptions.

D. Thesis Organization

Beyond the **Introduction,** the thesis is organized into three sections. The **Analytical Framework** section identifies and summarizes an academic framework for analyzing change (i.e. Nadler and Tushman, 1989), including:

- defining an organizational model,
- identifying types of organizational change,
- identifying types of organizational change management,
- defining processes to assist in achieving organizational change objectives.

In the **Analysis** Section, the Nadler and Tushman framework will be applied to the specific case study of the Alberta Ministry of Energy. First, the "Previous" and "Desired" organizations will be reviewed in detail, according to the individual components of the organizational model (micro analysis). Developing these two reference points helps put the change program in context, by developing a clear vision of where the organization was, and where it desires to evolve to. Next, the organizational model will be used to describe the change process in a more dynamic macro analysis, reviewing the evolving organization over the first 24 months since the change in government leadership. The type of organizational change will be identified, as well as the type of organizational change management that is appropriate. The specific desired organizational change program will be identified and analyzed in detail. Perhaps most importantly, the process of managing organizational change under way in the Ministry will be analyzed.

In the **Conclusions** Section, the analysis is summarized broadly, and observations are made about major change impediments. Also included in this Section are

recommendations for enhancing the change process, to smooth and accelerate the achievement of organizational change objectives.

II. ANALYTICAL FRAMEWORK

A. Academic Underpinnings (Nadler and Tushman)

Academic change models are a useful place to look for a context to analyze the change process in the Alberta Ministry of Energy. Of particular use are holistic organizational models emphasizing the congruence of several key elements to the change process, such as the organizational models described by Pettigrew (1988), Nadler and Tushman (1989), Coopers and Lybrand (1994), and Hinings and Greenwood (1988).

These models emphasize the interplay of several important elements in translating organizational strategies into desired performance and results. Individual components of these models (e.g. strategy, structure, processes, people, etc.) are important unto themselves. However, the critical point of relevance is not the components in isolation, but how the elements fit together, and how they in turn influence the change process and organizational effectiveness.

Each of these models, directly or indirectly, recognize congruence among the components as critical. All offer a framework for organizational analysis at particular points in time, and recognize that organizations evolve through time into different states. However, the Nadler and Tushman framework is particularly relevant to the case of the Alberta Ministry of Energy as it not only utilizes a model based on the holistic congruence among components, but outlines a practical, systematic process for managing the transition between organizational states (Principles of Effective Frame-Bending). This distinct characteristic of the Nadler and Tushman framework made it particularly well-suited for analyzing the change program in the Alberta Ministry of Energy.

In addition, the Nadler and Tushman organizational model was similar in form, though different in nomenclature, to the model used by the external consultants (i.e. Coopers and

Lybrand) retained to advise the Ministry on its change program. This also makes its selection as the basis of analysis desirable as the form and concepts of the organizational model component are already familiar to the author and senior Ministry staff. Its real value-adding feature, however, is its dynamic process of change component (i.e. Principles of Effective Frame-Bending). This Section will describe the key components of the Nadler and Tushman organizational framework, including the development of an Organizational Model, discussion of types of organizational change and change management, and the identification of a practical process for managing change.

1. Organizational Model

Nadler and Tushman define organizations as:

> *complex systems that, in the context of an environment, an available set of resources, and a history, produce output.* [4]

Their view of organizations has two fundamental components including "Strategy" and "Organization." "Strategy" reflects the:

> *'pattern of decisions' that emerges over time about how resources will be deployed in response to environmental opportunities and threats.* [5]

"Organization" is comprised of the four components of Work, People, Formal Structure and Process, and Informal Structure and Process. These components provide the mechanism used to convert inputs into outputs, through a particular strategy.

Nadler and Tushman recognize organizational effectiveness to be determined by the congruence among organizational components of Work, People, Formal Structure and Process, and Informal Structure and Process. The concept is illustrated in Table 1.

TABLE 1 - Organizational Model

INPUT	→ STRATEGY →	ORGANIZATIONAL MODEL			→	OUTPUT
Environment		↔ ↕	Informal Structure & Process	↔ ↕	→	System Level
Resources		Work	↕ ↔ ↔ ↕	Formal Structure & Process	→	Unit/Group Level
History	→	↕ ↔	People	↕ ↔	→	Individual Level

Derived from Nadler and Tushman (1989)

Nadler and Tushman do not define their organizational categories in detail. However, for the purposes of this analysis, it will be useful to clarify and develop a clear interpretation of the model attributes.

Nadler and Tushman identify organizational inputs to include Environment, Resources and History. These represent the context within which the organization must operate. They are largely out of the organization's direct control, and might be considered as exogenous variables to the organizational model.

Nadler and Tushman's **"Environment"** input represents the organization's overall operating environment. This may include economic, technical and political influences. Examples of economic input variables to the model are the general state of the economy

(e.g. growth, recession, boom, etc.), productivity, interest rates, exchange rates, investment, etc. Technical influences may include available states of technology development or automation, industry product developments, etc. Political influences may include the behaviour of competitors, customer expectations, legal and ethical bounds of organizational behaviour, nature of stakeholders and other interest groups, nature of business (global interdependence), etc. Each organization has a largely unique set of economic, technical and political influences which it faces in its operations. These environmental influences have a profound effect on organizational design and largely dictate available strategies.

Nadler and Tushman also recognize that **"Resources"** are an integral input to the model. Resources include the obvious financial ones, but can also include less-obvious non-financial ones. Examples of non-financial resources include prevalent market perceptions, psychology or mythology about the firm (e.g. reputation that IBM is the world's best computer company), or continuing loyalty of past or retired employees. Resource availability influences virtually all important organizational elements, as well as the mix of elements. For example, availability of resources will determine the ultimate mix of human resources, information technology, or other technological processes that are utilized in carrying out the business of the organization.

Organizational **"History"** is recognized by Nadler and Tushman as important in setting the organizational context. Past precedents and familiar organizational behaviours are often deeply imbedded in the organizational psyche and can have important implications on organizational strategy and design. Each firm has a unique history which influences both its current and future behaviour and performance. One of the most important attributes of an organization's history is its influence on organizational culture. Culture can have a dramatic impact on the pace and acceptance of change, and organizational culture is largely a product of historic experience.

"Work" represents the actual tasks performed in the organization. Examples might include product or service development, assembly, marketing, delivery and control. The Work component of the organizational model refers to "what" it is that the organization does.

The **"People"** component of the model includes the staff of the organization, not only in number but also in skill set. The "People" component represents the firm's human resources, and are largely under its control. The component is ever-changing as the employees knowledge base fluctuates over time, through turnover, experience and training.

The **"Formal Structure and Process"** component is analogous to the "written" rules of organizational design and process. Formal structure and process largely determines the desired responsibility and accountability paths in the organization. Formal structure determines the desired reporting relationships among the people and work units in the organization. Formal structure and process has important influences on organizational culture, authority and power bases. Formal process indicates "how" a firm is expected to perform its work. There is some level of overlap between the work and formal process aspects of the model as it is often difficult to completely isolate the work itself from the process under which it is intended to be carried out. Examples of other formal processes include strategic planning, human resource procedures (e.g. policies of hiring, firing, compensation, reward, performance evaluation, etc.), information systems, decision-making, etc.

"Informal Structure and Process" represents the "unwritten" relationships among the organization and often sets out how work actually (as opposed to desired) is carried out. Informal structure and process also can have important influences on organizational culture and power, which in turn have a large influence on organizational effectiveness and ultimate performance.

Nadler and Tushman also identify an **"Output"** component to the model, which represents the actual results or performance of the firm. Organizational outputs span a broad spectrum of levels from very macro-oriented perspectives of the organization as a whole (e.g. system level), to more micro-oriented subsets including group and individual levels.

Nadler and Tushman adopt this model as largely characteristic of all organizations. At any point in time, an organization can be defined and analyzed according to this framework. However, the model is also useful in analyzing organizational change. That is, it can also be used in a dynamic sense to explain organizational change from one state or level of congruence to another.

The central problem in managing organizational change is maintaining congruence in the system as the organization evolves. As changes occur to one or more elements in the system, other elements also likely must adjust to maintain maximum effectiveness.

The Nadler and Tushman Organizational Model provides a framework for analyzing and characterizing the attributes of an organization. It also provides distinct reference points and a framework to analyze ever-present changes to model attributes. However, Nadler and Tushman recognize that different levels of change require different organizational responses. For that reason, it is important to identify types of organizational change.

2. Types of Organizational Change

Nadler and Tushman maintain that organizational change can be characterized into several types, depending on the scope or magnitude of the change (i.e. incremental, strategic) and the positioning of the change in relation to key external elements (i.e. anticipatory, reactive). Four types of organizational change corresponding with these possibilities are identified in Table 2.

TABLE 2 - Types of Organizational Change

NATURE OF CHANGE	INCREMENTAL	STRATEGIC
ANTICIPATORY	Tuning	Re-Orientation
REACTIVE	Adaptation	Re-Creation

Derived From Nadler and Tushman (1989)

"Tuning" is defined by Nadler and Tushman as:

> *incremental change made in anticipation of future events* [6]

It seeks to increase efficiency and is akin to the concept of continuous improvement so commonly referred to in the business press of the 1990s. Organizations are always having to tune their behaviour to changing expectations brought about as a result of minor shifts in their internal and external circumstances. Flexibility in all organizational components is important to enable ongoing tuning responses to changing conditions.

"Adaptation" is defined by Nadler and Tushman as:

> *incremental change that is made in response to external events* [7]

Competitor mimicking is an example Nadler and Tushman use to describe such change, which does not require fundamental or wholesale organizational changes. Responsiveness is an important characteristic to employ in all organizational components to ensure ongoing organizational adaptation to the several minor shocks which an organization is faced with continually. Both adaptation and tuning represent change of relatively small magnitude.

Nadler and Tushman identify **"Re-Orientations"** as:

> *strategic change, made with the luxury of time afforded by having anticipated the external events that may ultimately require change* [8]

Re-Orientations are of particular interest to Nadler and Tushman because they represent major strategic shifts in organizational attributes, but with the luxury of being planned and managed. The emphasis of a Re-Orientation is to bring about major change without a sharp break from the existing organizational frame of reference. For this reason, Nadler and Tushman refer to such changes as "frame-bending."

Nadler and Tushman define **"Re-Creations"** as:

> *strategic change necessitated by external events, usually ones that threaten the very existence of the organization* [9]

Such change often requires radical change from past norms and often without the luxury of being planned. Time, or lack of it, is often a critical element, as there is little opportunity for planning and managing organizational change in light of changed circumstance. Nadler and Tushman refer to Re-Creations as "frame-breaking" change, as they seriously challenge or shatter the organization's existing frame of reference.

These classifications of types of change are useful in defining the nature of change under way within an organization. Nadler and Tushman go on to recognize that different types of change require different types of change management, depending on the nature of the organization itself and the nature of the change program undertaken.

3. Types of Organizational Change Management

Nadler and Tushman recognize that associated with the different types of change are differing levels of change intensity. This largely flows out of the degree of opportunity or threat facing the organization which is driving the need for change. Re-Creations are the most intense type of change, not surprising given that they flow out of large magnitude external shocks which usually threaten the very existence of the organization in the previous configuration.

An example of a Re-Creation might be the poison Tylenol incident at Johnson and Johnson in the 1980s. The death of a consumer from ingesting the product threatened the very existence of the organization by challenging the safety of all similar company products almost overnight. The company was forced to react and initiate change immediately, or risk losing an image, reputation, customers, and market share developed over several decades. Such organizational responses are necessarily intense, given the high degree of uncertainty and lack of planning usually available. Time is often the scarce resource in responding to such a crisis.

Intensity of change will typically decrease with increased opportunity for planning. As such, Re-Orientations are less intense than Re-Creations, and Tuning is less intense than Adaptation (see Table 3). The relative level of intensity influences the type of change management appropriate for the circumstance.

TABLE 3 - Relative Intensity of Different Types of Change

High	**Re-Creation**
Medium	**Re-Orientation**
	Adaptation
Low	**Tuning**

Derived From Nadler and Tushman (1989)

Nadler and Tushman also recognize the importance of organizational complexity in defining the appropriate type of change management. Organizational complexity is determined by the size and diversity of the organization under review.

Organizations typically become more difficult to change as they increase in complexity. Small and simple organizations are easier to change. Nadler and Tushman map these concepts of intensity and complexity together to classify different types of organizational change management, which are summarized in Table 4.

TABLE 4 - Types of Change Management

<table>
<tr><th rowspan="2">INTENSITY OF THE CHANGE</th><th colspan="3">ORGANIZATIONAL COMPLEXITY</th></tr>
<tr><th colspan="2">Low</th><th>High</th></tr>
<tr><td rowspan="3">High</td><td colspan="2"></td><td>Management of Strategic Organizational Change</td></tr>
<tr><td></td><td>Transition Management</td><td></td></tr>
<tr><td>Change Through Normal Management Processes</td><td colspan="2"></td></tr>
<tr><td>Low</td><td colspan="3"></td></tr>
</table>

Derived from Nadler and Tushman (1989)

Strategic organizational change is clearly the most complex and intense to manage. Nadler and Tushman assume that organizations would rather avoid the risky Re-Creations, given their ability to threaten the very existence of the organization. Instead, they state:

> *the challenge, then, is to effectively initiate and implement re-orientations, or frame-bending change, in complex organizations.* [10]

A benefit of Re-Orientations is that management has the luxury of planning, initiating, managing and sustaining the change.

4. Managing Change (Re-Orientations)

In managing a Re-Orientation in a complex organization, Nadler and Tushman identify Ten "Principles for Effective Frame-Bending", outlined in Table 5. These principles were developed after extensive observation of organizations undergoing strategic change programs. They offer insights into perceived common characteristics of effective Re-Orientations.

Nadler and Tushman's principles are not intended to be discreet, mutually exclusive and sequentially applied. Instead, they are continuous, inter-related and require constant attention and nurturing.

TABLE 5 - Principles of Effective Frame Bending

INITIATING CHANGE	CONTENT OF CHANGE	LEADING CHANGE	ACHIEVING CHANGE
1. Diagnosis	4. Centrality	6. Magic Leader	8. Planning and Opportunism
2. Vision	5. Three Themes	7. Beyond the Magic Leader	9. Many Bullets
3. Energy			10. Investment and Returns

Derived from Nadler and Tushman (1989)

a. Initiating Change

A critical pre-condition for successful change programs is to examine, understand and establish an appropriate framework in which change can take place. Once established, this framework must continually be maintained and adjusted to reflect ever-present external influences on the organization largely out of its control. Without clearly understanding and establishing a suitable framework for change upfront, change is likely to become misguided, misdirected and probably largely misunderstood within the organization. Nadler and Tushman identify three principles critical to initiating successful change. These include a comprehensive understanding of the organization's operating environment (Diagnosis Principle), clear and concise definition of both organizational and change objectives (Vision Principle), and momentum to both initiate and sustain desired change (Energy Principle).

1. **Diagnosis** - involves identifying the appropriate strategic and organizational changes required. This requires a careful analysis of the fit of organizational design with the external environment, ensuring congruence with expected states, flexibility, and responsiveness to deal with uncertainties. The diagnosis stage requires data collection and analysis about the organization and how it operates in its expected environment. It examines environmental, technical and political aspects and identifies critical organizational threats and opportunities. Diagnosis is best undertaken by internal organizational management, which helps build commitment and understanding of the cause and need for change.

2. **Vision** - involves the development of a clear, concise description of the desired future state, or desired organization. The vision is usually far-reaching in scope, covering not only performance objectives but the overall organizational context and design (e.g. strategy, structure, process, values, beliefs, rationale for change, views of stakeholders, etc.). Vision statements serve multiple purposes and can

be directional, symbolic, educational and energizing. They are often a place to return to reinforce overall organizational objectives.

3. **Energy** - is required to initiate and sustain the change program. Nadler and Tushman observe that organizations contain tremendous forces of stability and are inherently opposed to change. In early phases, the need for organizational change may only be apparent to relatively few in the organization. A sense of urgency must be effectively created, along with a method of communicating that urgency throughout the organization. Energy and urgency are typically only created when the organization suffers pain. The larger and more intense the required change, the larger the pain needed to mobilize desired actions. Pain is often effectively created and communicated throughout the organization by having employees themselves participate in the data collection process.

b. Content of Change

Nadler and Tushman recognize that successful change emanates from programs that are clear, concise, simple and easy to understand. Broad themes of change are easier to instill into organizational behaviour than more specific themes that are typically more complex, detailed, cumbersome and less likely to apply equally well to all organizational circumstances. The fundamental content of change should be largely generic and centrally important to the organization as a whole (Centrality Principle). This allows smaller subsets of the organization increased flexibility in applying the generic content to their specific circumstances. For maximum effectiveness, change sub-themes must also be limited (Three Themes Principle). Evidence suggests that organizations presented with multiple, complex change themes are less likely to adopt them in any more than a transient manner.

4. **Centrality** - implies that change must be clearly and obviously linked to the central core strategic issues of the organization. If changes are not perceived as central to ultimate survival and success, they tend to be transient and only weakly adopted. In organizations where the need for change is not clearly recognized by employees, the challenge is to instill this sense of urgency throughout the organization. Success often occurs where the central themes are largely generic (e.g. improved quality, competitiveness, innovation, etc.) so that each diverse operational area can latch onto the general theme and apply it to its own specific context.

5. **Three Themes** - acknowledges that successful Re-Orientations have usually emphasized a limited number of themes during the change process. Strategic organizational change typically involves numerous specific activities and paths to implement the change program. Employees seem only capable of integrating limited numbers of major themes of change at a time and if too many themes are promoted, there is a risk that such activities actually diffuse each other's importance, increasing the risk of change failure. One of the greatest difficulties in managing change is not proceeding with a particular specific change program out of concern for diluting other change programs. This has implications for the pace of change.

c. Leading Change

Nadler and Tushman recognize the importance of leadership in managing successful strategic organization change. Change is inherently disruptive. Organizations are inherently resistant to change, especially if they have been successful in the past. Strong leadership at both individual (Magic Leader Principle) and group/organizational (Beyond the Magic Leader Principle) levels is required to help guide the organization through its disruptive state to attain its change objectives.

6. **Magic Leader** - acknowledges that most successful change programs have at the centre of the program an individual champion of change that is recognized as the focal point of the exercise, and whose presence holds with it a special feel, charisma, or "magic." Active and visible leadership is required to articulate the change and mobilize the organization towards the new vision. Nadler and Tushman observe that magic leaders demonstrate distinctive behaviours that are envisioning (e.g. set compelling vision, high expectations and model consistent desired behaviours), energizing (e.g. demonstrate personal excitement, express personal confidence, seek find and use success), and enabling (e.g. express personal support, empathize and express confidence in people).

   Magic leaders also must be able to create a sense of urgency, act as guardians of central themes, and demonstrate an appropriate mix of styles. The challenge for the magic leader is to fulfil the need to be one, at the very time that the organization needs to grow beyond relying on its leader.

7. **Beyond the Magic Leader** - recognizes that ultimate organizational success in achieving change objectives depends on building a broader base of support for the change, beyond the individual champion and throughout the organization. That is, magic leadership is a necessary but insufficient condition for achieving effective, sustained strategic organizational change.

   The expansion of leadership beyond the magic or charismatic champion occurs in two directions. The first represents instrumental leadership, which :

   > *focuses on the management of teams, structures, and managerial processes to create individual instrumentalities* [11] (i.e. institutionalize desired traits)

Instrumental leadership involves:

> *making sure that individuals in the senior team and throughout the organization behave in ways needed for change to occur. An important leadership role is to build competent teams, clarify required behaviours, build in measurement, and administer rewards and punishments so that individuals perceive that behaviour consistent with the change is central for them in achieving their own goals.* [12]

The second path involves broadening the base of leadership throughout the executive team. Successful changes are characterized by a large investment in the executive team, both as individuals and as a group. This team must ultimately own the vision.

d. Achieving Change

Without careful attention to implementation detail, even the best conceived change plans are likely to flounder and fail. Successful strategic organizational change does not arise from simple recognition and proclamation of the tasks at hand, but from a comprehensively managed and carefully-executed change implementation strategy (Planning and Opportunism Principle) that is flexible and responsive, carefully communicated and reinforced (Many-Bullets Principle), and adequately resourced (Investment and Returns Principle). Strategic organizational change is knowingly messy and disruptive to the organization. However, it is also likely necessary and beneficial for long term competitiveness and survival, or it would never be initiated. Change programs cannot be underestimated and entered into or managed half-heartedly. Successful strategic organizational change requires extensive commitment of time, resources and organizational energy.

8. **Planning and Opportunism** - implies that strategic organizational change does not occur by simply recognizing and stating desired objectives, but is well planned. Successful Re-Orientations involve a mix of detailed planning and unplanned opportunism. While planning and managing the change process are critical, surprises always arise requiring detours in the plan. This is where opportunism becomes paramount. Successful Re-Orientations appear to be guided by a process of iterative planning and revision.

9. **Many-Bullets** - recognizes that managers need to use multiple levers to reinforce change themes. Employees are subjected to numerous organizational interactions in carrying out their tasks. Individual structural elements can all interact to reinforce or reject a desired change. While it is important to focus on a limited number of major themes of change (i.e. Three Themes Principle), it is also important to utilize "many bullets" in reinforcing the themes central to the desired change programs. An infinite number of possible reinforcement levers exist, including performance standards and measurement, rewards and incentives, planning processes, budgeting and resource allocation, information systems, communications, etc. Just as congruency is required among broad organizational attributes of work, people, and formal and informal structure and process, it is also required in everyday organizational activities and detailed processes to ensure they are complementary with the desired change objectives. Successful managers make use of these and other levers to reinforce desired change programs.

10. **Investment and Returns** - recognizes that large scale, significant organizational change requires significant investments of time, effort and resources. The scarcest resource in the organization appears to be the time of the senior management team. Large scale, significant organizational change also takes time. As organizational complexity increases, so does the time required to instill the change. Expectations must be consistent with this fact of change. Experience

shows that large scale Re-Orientations take from 3 to 7 years in complex organizations.

Nadler and Tushman's Organizational Model provides a useful tool for analyzing organizations to identify their fundamental attributes and character, much like taking a cross-section of the organization at a point in time. Nadler and Tushman's Principles for Effective Frame-Bending supplement the Organizational Model by describing a process of managing strategic organizational change. Together, these tools are relatively simple, yet powerful for applying to real world case studies of strategic organizational change such as that under way in the Alberta Ministry of Energy.

III. ANALYSIS

The previous section outlined an academic framework for analyzing change (i.e. Nadler and Tushman). This section applies that framework to the specific case study of the Alberta Ministry of Energy.

A. Organizational Model

To effectively analyze the specific change process under way in the Alberta Ministry of Energy, it is important to clearly understand the organizational design of both the "Previous" and "Desired" organizations. For the purposes of this analysis, it is useful to characterize these organizations according to the model elements of the Nadler and Tushman Organizational Model (Environment, Resources, History, Work, etc.). It is also useful to characterize the Previous and Desired organizations at points in time. The Previous organization is defined as that which existed prior to the serious initiation of the change program. December 1992 is a logical reference point for the Previous organization. Although fiscal pressures were already acting on the organization ahead of this time, this reference point coincides with the change in government leadership which provided the impetus and early momentum for large-scale, comprehensive change. After this time, change planning activities commenced, and were reinforced in June 1993 with the provincial election re-electing the Ralph Klein government. This event provided the ultimate certainty and confirmation that the change process would proceed, and began a more detailed, comprehensive and coordinated change planning process.

A convenient time frame to view the Desired organization is March 31, 1997, which represents the end of the initial three-year planning horizon after which government fiscal objectives for a balanced budget are to be met.

1. Previous Organization

The "Previous" Ministry of Energy was comprised of a group of separate and distinct entities whose activities and functions centred around the energy industry. For political, budget and reporting purposes, it was convenient to organize these entities together under a single Ministry. However, despite the reporting linkages to a common Ministry, the Previous organization was characterized by the independence and autonomy of the individual structural entities (i.e. ADOE, APMC, AOSE, AOSTRA, PUB, ERCB).

The Previous Ministry was fundamentally 6 separate organizations, each with its own unique organizational attributes of strategy, structure, process, people and work. The entities did share some common environmental inputs (e.g. economic, technical, political, competition, stakeholders, etc.) and the structural linkage and accountability to the Minister and government.

Strategic planning among the previous units was not largely coordinated. Instead, each organization had significant authority, power and control over its own activities, within the budgetary bounds established for it by the Minister and government. Ministry entities worked together on an as-needed basis in areas of overlapping jurisdictions (e.g. regulatory policy, oil sands development, etc.). Mostly though, information flow, decision-making, accountability and responsibility tended to be largely vertical in the Ministry.

In matters which crossed multiple Ministry jurisdictions (e.g. regulatory policy - ADOE and APMC, Oil Sands - AOSE, AOSTRA, ADOE), if consensus did not exist among the agencies, the Minister often became the decision point. Separate agencies became separate sources of advice for the Minister on individual issues, sometimes providing conflicting or inconsistent positions.

a. Common Inputs (Environment, Resources, History)

The Previous organization was largely the result of changes made in the early 1970s in an environment that was much different from that of the mid-1990s. Most notably, there was a substantial change in Alberta's fiscal position and future outlook over these two decades, driving virtually all aspects of the organizational design criteria.

In the early 1970s, expectations were for sharply increasing energy prices which were expected to provide windfall revenues to the Alberta Government from its strong resource base and constitutional ownership of natural resources. Organizational design considerations included effectively managing the increasing revenue base, and asserting jurisdictional control and management over natural resources.

Government-wide, spending levels were based on expectations of strong resource revenues. In the 1970s, there were two significant energy price shocks, in 1973 following the Arab Oil Embargo and again in 1979 following the Iranian Revolution. This set the backdrop for government responses to these global events. Energy is a critical component of a well-functioning economy. Given its uneven supply distribution, energy also takes on added strategic importance with far-reaching economic and political impacts. Alberta is an energy-rich supply area. In 1980, resource revenue contributed about half of the Alberta Government's total revenues. However, strong and growing resource revenues failed to sustain themselves due to Canada's federal public policy and global supply and demand realities which placed downward pressure on energy prices throughout the 1980s.

In 1980, the Canadian federal government announced a "National Energy Program" (NEP), which included several negative and arguably discriminatory policies against Alberta, in the name of federal security of energy supply and consumer protection from increasing energy prices. This policy brought about a re-distribution of energy-related

wealth from Alberta to the federal government, and was devastating to the Alberta economy. An emotional jurisdictional dispute between Alberta and the Canadian federal government ensued.

In 1982, the national policy was modified somewhat in Alberta's favour. By 1985, after a change in federal government, the NEP was largely dismantled and Canadian energy policy became more deregulated, ending the period of intense regional discrimination and jurisdictional dispute. It is widely recognized that the NEP brought about a $60 - $80 billion transfer of wealth from Alberta to the federal government. This era generated intense emotion among Albertans, spawning separatist sentiments and permanently altering Albertans' views of its energy industry and federal-provincial relations.

In addition to significant politically-motivated events, global energy supply and demand fundamentals also changed after 1979. Higher energy prices stimulated supply development and conservation efforts. This began a period of slow but steady global energy price deterioration, contrary to the underlying assumptions of the NEP. These pressures culminated in a sharp drop in world energy prices in 1986, resulting in a corresponding drop in provincial revenue. Annual budget deficits resulted for the Alberta Government which led to a growing debt over time. Energy prices recovered somewhat over the later 1980s, though never again to the highs of the early 1980s. This led to several years of below average financial performance in the energy industry resulting in massive rationalization, down-sizing and reduced activity. For the government, the period was characterized by continuing budget deficits. By 1992/93, resource revenues contributed a more modest 20% of total Alberta Government revenues. This pattern of deficit financing continued until the change in government leadership in 1992, which began a reversal of the trend.

Key Ministry **stakeholders** included the elected officials themselves (i.e. provincial and federal government and opposition), other government departments (especially

Environment, Treasury, Economic Development, Agriculture), industry (e.g. companies and associations) and the general public at large (e.g. ultimate owners of the natural resources). Industry is a particularly important stakeholder to the Ministry, given the strong reliance on energy for the economic well-being of the province. Given the sometimes heated history over jurisdictional control, energy matters have been central to Alberta's well-being and impacted virtually all Albertans in the last several decades.

Given the obvious strategic importance of energy issues and management to the Alberta Government, the Ministry itself typically had adequate financial **resources** to effectively perform its duties within a complex environment. It also underwent several organizational changes throughout the 1980s. Ministry budgets had begun declining since 1989, when total Ministry spending was almost $130 million. However, the momentum to sustain these trends and a coordinated plan to achieve them was not effectively instigated until the change in government leader and Cabinet in late 1992.

The change in government leadership brought with it an abrupt change in style and strategy. This shift began a process of "re-engineering" government across all Ministries with a predominant focus to improve the government's financial position. One of the first steps of the new Cabinet was to eliminate or consolidate nine government departments in their entirety. This step likely garnered early support for the government's fiscal restraint agenda by a populace claiming to be overtaxed and demanding change. The government also took early significant and symbolic steps like a voluntary severance program which reduced total Alberta government employees by about 2500. The elected officials also took a voluntary 5% cut in pay, together with the elimination of their own pensions which showed an early and significant change in style from prior governments.

In addition, the government launched a review of its more than 200 agencies, boards and commissions (ABCs) to identify further areas for streamlining. Energy Ministry ABCs came under increasing pressure to justify their continued existence. Notably, the APMC

came under pressure to be eliminated or merged. It was likely these early attacks on the APMC that launched a more serious review of overall organizational structures within the Ministry itself.

At about the same time, the energy industry in Alberta was regaining momentum and financial strength due to several factors including:

- expanding markets and increasing prices for natural gas,
- declining Canadian exchange rate (boosts value of export revenue where over half of Alberta energy products are sold),
- lower interest rates,
- improved equity markets,
- technological advance (e.g. horizontal drilling, 3 dimensional seismic, etc.),
- royalty re-engineering including overall magnitude reductions.

In June 1993, an election was held in which the government was re-elected, on its fiscal restraint platform. Strong election results gave the Government the mandate to enact changes of the sorts discussed prior to the election.

An internal process of organizational review commenced and ultimately external consultants were engaged to conduct a broader consultation. The following issues were identified internally, or by stakeholders as important aspects to address in the organizational re-design:

- growing concerns over inconsistent policy direction from the independent reporting units (e.g. regulatory policy),
- lack of focus in strategic core activities (e.g. oil sands),
- overlap and duplication of systems (e.g. information collection and storage),
- uncoordinated revenue collection (e.g. oil versus gas, royalties versus lease revenues),
- increasing the advocacy role of the Ministry (e.g. industry promotion),
- building on the existing strong regulatory infrastructures (e.g. recognize rich regulatory history and reputation),
- improving research focus (e.g. industry-led activities having greater potential for commercialization),
- clarifying Ministry role in ex-Alberta affairs (e.g. participation in regulatory hearings),
- rationalizing Ministry administration and information system management (e.g. industry volumetric reporting).

In January 1994, the consultants concluded their review and presented it to the Minister. On February 9, 1994, senior Ministry officials were gathered and informed of the government's decision to proceed with the re-organization. Reactions ranged from surprise to validation of expectations. Certain agencies challenged the decision as it related to their activities. Other agencies appeared to be relieved that a decision was

made, as speculation had increased for several months. On February 11, Ministry staff were advised of the government decision just ahead of a public announcement.

With these many common inputs influencing all Ministry organizations up until detailed change implementation, the actual organizational model components must be reviewed in the context of each individual Ministry entity, as each entity was created and managed on a separate and distinct basis.

b. Alberta Department of Energy (ADOE)

The ADOE's roots go back to 1930, when the federal government transferred ownership and responsibility for resource management to the Province, resulting in the creation of the Alberta Department of Lands and Mines. In 1949, the Department split into two new ones (Department of Lands and Forests, Department of Mines and Minerals). In 1975, the two areas were brought together again, this time as the Department of Energy and Natural Resources. In 1986, they again were split into the Department of Energy (ADOE) and the Department of Forestry, Lands and Wildlife. Historically, the ADOE was a small organization relative to most other government Departments. However, Ministers of Energy were traditionally senior Ministers, given the strategic importance and profile of the Ministry, especially since the early 1970's. The ADOE is somewhat different from most other government departments as it is essentially a revenue collector and "steward" of energy resources, as opposed to a "program delivery" or spending-based department like traditional government departments of health, education and social services.

The largest single activity of the Ministry (based on manpower) is administering the collection of royalty and lease revenue from industry activities. The specific strategy of the previous ADOE was somewhat unclear to most of the organization. There was little use of tools like mission, vision and mandate-building exercises. There was little effort

undertaken to develop specific organizational strategy, broaden support and commitment to it throughout the organization, and institutionalize it. Where specific strategies were developed and utilized, it was typically at a micro level, within a branch or division as opposed to organization-wide. Fundamentally, broad strategic planning was an informal exercise left to the Deputy Minister.

The previous ADOE had four basic **work** functions:

1. *Grants mineral rights and administers mineral agreements*
2. *Policy advice to government*
3. *Administers fiscal/royalty regimes*
4. *Administers energy related research, development and conservation programs* [13]

The work of the organization in administering fiscal and royalty regimes was typically routine, repetitive and largely administrative. This lent itself well to the establishment of bureaucratic processes and procedures for administering the work. The work of the organization in mineral rights administration, policy development and research was different, lending itself better to a looser management style more flexible and responsive to the often-changing external environment. These activities were less repetitive and non-routine.

The **formal structure** of the Previous ADOE included 5 core operating divisions (i.e. Mineral Revenues, Mineral Resources, Markets Supply and Industry Analysis, Sustainable Energy Development, and Finance and Administration which also supported the Department of Forestry, Lands, and Wildlife), each headed by an Assistant Deputy Minister who reported to the Deputy. Two other divisions reported directly to the Deputy Minister (i.e. Communications, Legal Services), both of which provided support services to the entire organization. The structure was very much a traditional government

hierarchy, with several layers of management. An organizational structure chart is included in Appendix 2.

An important cultural attribute was a strong "silo mentality", based on the structural divisions. Divisions operated autonomously of each other and conflict often existed among divisions. Where disputes arose, issues were largely resolved by the Deputy Minister. Morale was inconsistent throughout the organization. Certain divisions appeared to have serious morale problems.

Formal processes and information flow were very much up and down each division, without significant pro-active lateral interaction or cooperation, except perhaps for human resource, budgeting and certain systems activities which impacted all areas of the organization, though were controlled by the Finance and Administration Division. Formal operating processes were prevalent throughout the organization, typically instigated and administered by whichever division required the process. Within the previous ADOE, information technology strategies related to financial control were administered on an organization-wide basis. However, most other information system requirements of the organization were left to individual divisions to manage. Certain areas used local area networks (LANs), while others used mainframe applications. As such, systems were not always compatible between divisions resulting in technological barriers to communication and information exchange and contributing to a division-based "silo-mentality".

Structure and operations were bound by certain legislative requirements, notably the Department of Energy Act, Public Service Act, and Mines and Minerals Act among others.

Informal structures and processes were typically vertically-oriented along divisional boundaries as well. Despite the formality and bureaucratic requirements of a government

department, many staff perceived the organization as being successful at overcoming these restrictions enabling it to rely on its own informal methods of doing business.

Ultimate power in the Previous ADOE rested largely with the Deputy Minister, though ADMs had considerable flexibility and autonomy in managing the daily operations of their areas of the Ministry. Power bases in the organization were not necessarily consistent with the formal structure. For example, power bases based on individual or group performance existed.

There were no formal Ministry-wide procedures for the management of daily business issues. Each area of the Department utilized its own norms of conducting its ongoing activities with the Assistant Deputy Minister and/or Deputy Minister being a "gatekeeper" of information flow and decision-making in the organization. ADOE interaction with the Minister's Office was extensive at senior levels.

The culture in many ways reflected a command and control approach, with the Department setting policy and procedures and then monitoring and enforcing maintenance of the established norms. There was not always frequent and comprehensive coordination of issues between ABCs and the Department, and no real "cross-over" mechanism or way of reconciling differences of opinion below the Minister. The industry was consulted often, though sometimes in an adversarial manner, especially when it came to royalty issues.

The role of government in most Ministry matters was considered to be relatively pro-active, with the government having authority and ability to become actively involved in participating in, and influencing industry outcomes (e.g. new equity investments in oil sands, government driven research). The culture reflected this "rowing" mentality, as opposed to a "steering" one. This was an important observation to come out of the consultant's organizational review as well.

The ADOE had 550 full-time employees in 1993/94 **(People).** Large pockets of management had several years of experience in the organization. Staff included a sizeable workforce of administrative support for the revenue and lease administration functions. There also existed a large contingent of technical and professional staff, mainly economists, engineers and accountants. Staff development through training, conferences, seminars, etc, was encouraged and accessible, especially in the policy or technical areas. A large portion of ADOE employees were unionized, belonging to the Alberta Union of Public Employees (i.e. AUPE).

c. Alberta Oil Sands Equity (AOSE)

AOSE was established in 1975, as the Province invested in the Syncrude oil sands project. AOSE strategy was largely determined by the Chairman.

AOSE's primary **work** function was to manage the province's oil sands equity investments (e.g. Syncrude, OSLO, Bi-Provincial Upgrader). This included representing the province on project management committees, and performing the accounting, engineering and other technical responsibilities involved in project management.

AOSE's **formal structure** was managed by a Chairman, with three reporting Executive Directors in charge of the functional areas of Finance/Accounting, Administration and Engineering. The structure included mainly management and few support staff. **Formal processes** were managed independently, but given the small size of the organization, services were sometimes contracted out as required (e.g. legal services).

Informal structures and processes included a power base in the organization which clearly rested with the Chairman, who had been with the organization since its inception. The culture was dominated by a perception of independence from government. AOSE prided itself on its role as a quasi "private sector" participant in the major oil sands

projects, and worked diligently to maintain and promote its separate entity status from both the Department and government in general. The organization believed it was the necessary neutral interface between government and industry in the projects. Interaction with the Minister's Office was sporadic. There was sometimes a competitive friction between the Department and AOSE.

AOSE had 12 full-time employees in 1993/94 **(People).** Staff were technically-oriented and largely professional, including mostly engineers and accountants. Several of the staff had longstanding careers with the organization, demonstrating extreme loyalty to the organization and Chairman. There were no unionized employees.

d. Alberta Oil Sands Technology and Research Authority (AOSTRA)

AOSTRA was established in 1974 as a Provincial Crown corporation.

AOSTRA's **work** was:

> *to develop with industry, environmentally acceptable technology for efficient, economic recovery and processing of oil sands bitumen, heavy oil and conventional crude oil* [14]

It managed specific research projects, often together with industry.

AOSTRA was a very technically-oriented organization comprised mainly of engineers and scientists. **Formal structures** existed, though were relatively loose, relying heavily on temporary staff and contract personnel hired on a project basis. **Formal processes** were provided in-house. However, AOSTRA was identified by the Auditor General as needing improved systems and performance measurement.

AOSTRA had relatively few legislative requirements common to other government entities and as a result had considerable flexibility in its operations. Strategic planning was done largely by the Chairman and Vice-Chairman, with ratification and direction from a government-appointed Board of Directors. AOSTRA was governed by its own guiding legislation under the AOSTRA Act.

The contract of the Chairman expired in April 1993, after he had spent several years with the organization. The Vice-Chairman was named Acting Chairman.

Informal structures and processes were very prevalent throughout the organization. Given that the nature of the work was individual project management, there were several projects and project managers, each with their own preferred processes and operating styles. Several projects were of a continuing nature, and developed norms of operating long ago which continued to be followed. Each project brought with it its own style and structure of management, with only loose organizational requirements guiding it.

The culture at AOSTRA emphasized its independence from government. Managers were given extensive flexibility and authority to manage. Power in the organization was diffused widely throughout to the project managers, who had considerable flexibility and control over project directions. Staff were geographically located in both Calgary and Edmonton, and there was an apparent rivalry between the two centres. There was little interaction with the Minister's Office. In fact, the Auditor General identified this as a problem area and required that more information be provided to the Minister about all AOSTRA activities.

In 1993/94, AOSTRA had a Board of Directors of 7. There were 44 permanent staff in the organization and about 40 temporary and contract personnel. AOSTRA had no unionized personnel **(People).**

e. Alberta Petroleum Marketing Commission (APMC)

The APMC was established in 1974 to market Alberta crude oil. Informal and largely unstated strategies developed based on the organization's history and at the divisional levels. There was considerable power and authority spread throughout the organization.

After deregulation of energy markets in the mid 1980s, the APMC's **work** role changed to marketing just the Crown's share of royalty production from Crown leases in Alberta. The APMC in 1993 was the largest net seller of crude oil in Canada. The APMC's other responsibility was to represent Alberta at energy-related regulatory forums (e.g. pipeline toll hearings) across North America.

The APMC **formal structure** was that of a functional organization split into the two primary responsibilities (i.e. Crude Oil Marketing, Regulatory Affairs). **Formal processes** including Legal, Human Resources and Finance and Administration were set up as separate divisions. All divisions reported to the Commission itself, which was comprised of two members (i.e. Chairman and Vice-Chairman). The APMC was bound by certain legislative requirements specified in the Petroleum Marketing Act and the Take or Pay Costs Sharing Act, though was not bound by other legislation like the Public Service Act, giving it considerable flexibility in its operations, relative to traditional government departments.

Informal structures and processes and the organization's culture also emphasized the independence from government. This was even more evident than other Ministry agencies given that the APMC resided solely in Calgary with little interaction with other Ministry or government entities except for the policy division of the ADOE and the Treasury Department. Geographic isolation from the rest of government obviously reinforced this perceived independence.

Power was distributed throughout the organization, with considerable autonomy and flexibility available to senior managers in addition to the Commissioners themselves. Policy positions for hearings were independently developed, with some input from the ADOE, but positions were taken independently. Staff did not perceive themselves as part of government, but instead aligned themselves more with industry.

The APMC had 94 full-time employees in 1993/94. Staff were largely professional, including lawyers, accountants and other business graduates. There were no unionized employees **(People).**

f. Energy Resources Conservation Board (ERCB)

The ERCB was established in 1938 to ensure that Alberta's petroleum resources were utilized in a manner that protected the long-term public interest. The mission of the ERCB was to ensure that development of Alberta's energy resources takes place in a responsible manner in the interests of Albertans.

The ERCB is a quasi-judicial regulatory body. Core **work** functions of the ERCB are set out in legislation, largely through the Energy Resources Conservation Act:

1. *appraisal of reserves and productive capacity,*
2. *appraisal of energy resource requirements,*
3. *conservation, prevention of waste of energy resources,*
4. *control pollution and environmental conservation,*
5. *secure observance of safe, efficient practices,*
6. *recording and dissemination of information,*
7. *provide information, advice, recommendations to the Alberta Government,*
8. *determine whether energy project development is in the public interest having regard to its social, economic and environmental effects.* [15]

The ERCB was **formally structured** around 17 operating activities (e.g. gas, oil, oil sands, communications, legal, etc.) A Cabinet-appointed Board of 5 members and a managing director set overall strategic direction for the Board and its 17 operating divisions.

Formal processes were provided internally (e.g. information technology, human resources, legal, planning). The Board was pro-active in establishing formal processes to guide its activities including a broad organizational structural review (i.e. "CORP"), a total quality management exercise (i.e. Quality Management and Service - QMAS), an employee communications feedback system (i.e. Make All Good Ideas Count - MAGIC) and others. Overall, the Board utilized several formal processes to assist and enhance managing its operations. The Board received half of its funding from industry.

The Board was without a permanent Chairman since 1992, when the previous Chairman left for another opportunity within the government. The two Vice-Chairmen were appointed Co-Chairman and remained in that shared role until March 1, 1995 when a permanent Chairman was appointed.

Informal structures and processes were also important. The culture of the Board is particularly strong and reflects the long, proud history of the organization. Most employees are very technically oriented, mainly engineers and technologists. The ERCB is a quasi-judicial agency that prides itself on its independence from government and industry, despite the fact that its funding sources are provided by both. The ERCB is exempt from the Public Service Act giving it increased flexibility in its operations planning.

Power in the organization rests largely with the Board itself, though operational authority has been delegated widely throughout the organization. The Board is well-respected by industry given its ability to impact operations. It is also widely recognized as one of the

most important and well-respected regulatory agencies in North America. The Board prides itself on its role as the fair and neutral regulator of industry activity. Its preferred style is to achieve issue resolution through mediation, consultation and collaborative approaches, rather than by sometimes confrontational quasi-judicial hearings. Certain stakeholders in government and industry perceive the Board to have resisted change, relying heavily on traditional command and control approaches to regulation.

There was some minor interaction with the Minister's Office, especially in investigating public concerns over industry operations and in the annual planning and budgeting exercises. With respect to the regulatory functions of the ERCB itself, there was little interaction with the Minister's Office except to brief the Minister of Board decisions.

In 1993, the Board was comprised of 5 members and an executive manager, supported by 657 full-time employees in 17 departments **(People).** Staff were extremely technically oriented, including mainly engineers, geologists, technologists and lawyers. The ERCB had offices in Edmonton and Calgary, as well as 8 other field locations throughout Alberta. There were no unionized employees.

g. Public Utilities Board (PUB)

The PUB was established in Alberta in 1915 to establish just and reasonable rates and terms and conditions of service for utilities operating in Alberta (e.g. electricity, water, natural gas). Until 1990, the Board reported to Executive Council through the Minister of Transportation and Utilities. After 1990, the Board reported to Executive Council through the Minister of Energy. The PUB is a quasi-judicial tribunal granted the same status as the Alberta Court of Queen's Bench in matters of its jurisdiction.

The **work** of the PUB was largely to hold hearings to review evidence and set utility rates. There was certain analytical work and administration required to support this role.

There appeared to be no explicit formal strategy for conducting this work, simply well-established guidelines and rules of practice set out in legislation. The Board was very legal-minded in function and practice and this central feature drove virtually all activities.

The **formal structure** of the PUB included 4 divisions (i.e. Technical Services, Finance and Administration, Calgary Office, Regulatory Administration/Human Resources). **Formal processes** were provided internally. The Board was governed by several pieces of legislation outlining its operating bounds, including the Public Service Act and the Public Utilities Board Act. Formal processes were well established and strictly followed. This included the quasi-judicial hearing processes as well as organizational management processes. There was little interaction with the Minister's Office except in annual budgetary exercises and to notify the Minister of Board decisions. The PUB received one-third of its funding from government and two-thirds from utility consumers.

Informal structures and processes appeared less important and prevalent than formal ones. Power largely rested with the Chairman and to a lesser degree the Board members and Executive Director. The culture and most aspects of the operation appeared to rely on, and reinforce, the highly structured style of the Board.

In 1993/94, the PUB had 6 Board members and 38 full-time staff members, most with technical, legal or analytical backgrounds **(People).** The PUB had offices in Calgary and Edmonton, and also had unionized employees.

2. Desired Organization

The key element of the "Desired" organization is echoed in its Mission Statement:

> *to ensure energy and mineral resource development and use occur in an effective, orderly and environmentally responsible manner* [16]

Fundamentally, the Desired organization wishes to retain a strong client-focus and continue serving the public interest through efficient and effective resource policy, administration and stewardship, albeit with fewer financial resources. As such, a change program was envisioned to improve efficiency, productivity and create greater synergy in the Ministry through increased horizontal linkages, and more coordinated planning and operations. In doing so, the Ministry hopes to achieve its budget and manpower reduction objectives required by the government. Overall, the challenge of the Desired organization is to effectively conduct its work and attain its goals and objectives with 23% fewer financial resources and a 20% reduction in manpower.

In the following sections, organizational model elements are compared between the Previous and Desired organizations and the magnitude of change is characterized as either minor, modest or major. Major change elements are those that would likely receive widespread consensus among organizational staff as to their central role and influence in the change process. Modest change elements are those that would likely be identified by a majority of staff, perhaps after some debate and discussion, as to their central role and influence in the change process. Minor change elements are those that would likely receive only limited or sporadic support among staff as to their central role and influence on the change process. While these characterizations are admittedly subjective, they are useful in directing the organization to areas of the change program requiring particular emphasis or attention in change management.

a. Environment

The "Environment" component of the organizational model represents a **modest change element** between the Previous and Desired organizations.

The underlying economic and technical environment of the two reference points are similar. Economic and technical uncertainty and volatility are expected to continue to

persist around the Desired organization. However, political influences have changed. While volatility is expected to persist, there is a stronger political commitment to improved fiscal management through spending reductions. This has added some certainty for the organization about its future state.

The timing of elections, and the fact that an election effectively coincided with the end of the Previous organization also removed uncertainty about the government agenda and commitment to change between the Previous and Desired organizations, which both occur during the same election mandate.

In addition, the Desired organization is expected to operate in a much more conservative planning environment than the Previous organization. The government changed its style dramatically in this area. For example, resource revenue forecasts prior to 1993, on which government spending is also based, were typically overly-optimistic contributing to the inherent annual budgetary shortfalls. In 1994, revenue forecast methodology for budget purposes was revised to be the lessor of actual forecast or the previous five-year average. This trend for conservative budget planning, in revenue and other aspects, is a marked departure between the Previous and Desired organizations, and a function of the external operating environment (i.e. imposed directly by the government).

The organization's assessment of the future operating environment including economic, technical and political factors is included as a supplement to the initial three-year business plan included in Appendix 3.

b. Resources

The "Resource" component of the organizational model is a **major change element** between the Previous and Desired organizations. In fact, the reduced financial resources available to the Desired organization represents the single largest driving force behind the

change program. Over the three-year reference period, the budgetary resources of the Ministry will be reduced by 23%, from $95 million to $73 million annually.

c. History

The "History" component of the Organizational Model is not a change element in the same way that other model elements are. History is a common element between both the Previous and Desired organizations. As a result of the change program, 6 unique organizational histories from the Previous organization were forced into only two paths in the Desired organization. The unique histories added to the dynamics of the change process as the organizations were consolidated, especially as very different corporate cultures were brought together. As such, organizational histories have important influences on the change process, though are not really specific change elements themselves.

d. Strategy

The Strategy component of the organizational model is a **major change element** between the Previous and Desired organizations.

Strategy and strategic planning were not important formal visible attributes of the Previous organization. Strategy remained largely unstated, unplanned (i.e. formally) and uncoordinated. Essentially, strategic thinking occurred in the minds of senior officials, without systematic planning processes or articulation of strategic objectives throughout the organizations. As a result, in the Previous organization, strategic thinking was not consistently applied. Nonetheless, the previous entities were able to operate relatively smoothly with only informal strategic planning, perhaps given the general availability of adequate financial resources.

In contrast, a characteristic of the Desired organization is the conscious utilization of more open, systematic and comprehensive strategic planning processes, to ensure improved strategy formulation which can be measured for effectiveness and revised on an ongoing basis as necessary. The strategy is intended to be developed jointly with organizational staff and articulated throughout the organization.

The process of three-year business planning is to become the central strategic planning mechanism for the Desired organization, and is to be the guide for organizational behaviour and activities over the three-year period encompassed in the plan. The Organization's initial three-year business plan is contained in Appendix 3. The plan is to be a "living" document, with updates annually to incorporate another year in the planning horizon. The initial plan outlined the manner in which the organization intended to evolve from Previous to Desired states. As such, it is the stated strategies in the initial business plan that actually summarize the organization's desired change program. This differs from subsequent plans which evolved to focus more heavily on comprehensive organizational objectives instead of change activities.

The initial plan identifies, in a general sense, the processes or mechanisms that would be used to attain Desired organizational objectives including:

- 23% budgetary reduction over three years,
- 20% staffing reduction over three years,
- becoming more business-like,
- streamlining the regulatory framework,
- minimizing administrative burden to industry and government,

- ensuring simple and rational business processes,
- eliminating overlap and duplication,
- becoming more industry-focussed,
- ensuring fair, efficient and effective regulatory processes,
- becoming more open, accessible and consultative with stakeholders.

Within the plan, the organization notes:

> *The three-year budget reductions identified in the Business Plan will be achieved through discontinuing lower priority activities, restructuring higher priority activities, and rationalizing activities between the Department of Energy and the Alberta Energy and Utilities Board. The Ministry is committed to ensuring an orderly transition to a lower level of funding. This will be achieved by the eight strategies which have been launched. When completed, the strategies will identify the complete details of the Ministry's 23% budget reduction. The Ministry will ensure that its budget reductions will be met within the time lines identified in the Business Plan. The Ministry will adopt a business-like approach to its management and operations. It is committed to identifying budgetary reductions beyond those identified in the Plan, as work progresses on completing the eight strategies.* [17]

This statement, together with the eight strategies in the business plan, is a concise description of the specific change program desired in the Ministry of Energy. Details of these strategies are described below, as well as in Appendix 3 and Table 7.

There are two Ministry-wide goals, with underlying strategies for attaining goals:

1. *Maximize the value of Alberta's energy and mineral industries to provide greater benefits to Albertans*
   - *establish criteria for future program development and evaluation*
   - *develop a vision and action plan to develop Alberta's oil sands*
   - *develop a coordinated energy research strategy*

2. *Achieve greater efficiency and productivity*
   - *implement organizational restructuring*
   - *regulatory review*
   - *assess feasibility of alternative financial vehicles*
   - *re-engineer business processes*
   - *assess merits of one-window approach to Ministry information* [18]

e. Work

The work component of the organizational model is a **modest change element** between the Previous and Desired organization.

Again, the initial three-year business plan, through the organizational mandate, provides a summary of the actual work of the organization including:

- *develop policy,*
- *delineate and dispose of mineral resources,*
- *collect the Crown's share of revenue from exploration, development and sale of mineral resources,*
- *regulate production practices and related sectors (including pipelines and utilities),*

- *support research to enhance resource development and reduce environmental impacts,*
- *manage Alberta's equity participation in oil sands and heavy oil projects,*
- *monitor and assess Alberta's resource base and markets in support of the province's role in managing resource development; and encourage conservation, safe development and environmental protection,*
- *ensure the fair, efficient and open assessment of resource development projects,*
- *collect and disseminate data important to the ongoing management of Alberta's resource base.* [19]

Certain individual work components of the Previous and Desired organizations changed in several important ways, though core organizational responsibilities remained similar. These 9 core work areas encompass broadly the 17 work functions listed for the Previous organization in Table 6. Notable areas of change in work function for the Desired organization include:

- marketing of crude oil (i.e. privatization candidate - APMC marketing function),
- equity investments (i.e. divestiture candidates - Syncrude and Bi-Provincial Upgrader),
- information management (e.g. re-engineering or privatization candidate - royalty information management),
- industry advocacy (i.e. new work role),
- energy efficiency and renewable energy programs (i.e. privatization candidate),

- regulatory activities (e.g. streamlining, less command and control),

- business processes (e.g. re-engineering candidates).

Despite the fact that these are important and large-scale changes in individual work components, most require a degree of further study and cost-benefit analysis before implementation, offering a time lag to the Ministry before implementation.

It is important to recognize the importance of the Regulatory Review activity to the AEUB. This activity has the potential to change the AEUB work component significantly. Though again, there will likely be a modest time frame available for review and implementation. Over time, there is expected to be an increasing shift in certain areas from the comprehensive command and control regulatory approaches of the past, to a greater focus on regulating problem areas with strict penalties for non-compliance.

From the perspective of the Nadler and Tushman organizational model framework, there is some overlap between the work component and the formal and informal structures and processes components. In the case of the Alberta Ministry of Energy, it is the "how" of getting work done that is so critically changed between the Previous and Desired organizations, instead of the "what". As such, change in work components, as defined, represent only a modest change element.

f. Formal Structure and Process

The formal structure and process component of the organizational model is a **major change element** between the Previous and Desired organizations.

Over the reference period, there is a significant change in the formal structure of the organization, including the elimination of separate agency status for AOSTRA, APMC

and AOSE, a merger of the PUB and ERCB into the newly created AEUB, and an internal re-structuring of the ADOE and AEUB. These structural changes were undertaken to streamline activities, improve efficiency, improve focus, and remove overlap and duplication. Organizational charts of both the Previous and Desired organizations are included in Appendix 2.

The Department's structure is functionally arranged around four main divisions including Oil Sands and Energy Research, Policy, Operations and Support, and Strategic Resources. The desired structure is characterized by a more streamlined, focussed approach to both policy, and oil sands and energy research for which a separate division was created to reflect the strategic importance of the resource to Alberta. Operations and Support becomes the "meat and potatoes" division, performing the bulk of the Ministry's revenue and lease administration activities. Reflecting the desired reliance on improved strategic planning and management processes, an entire division (Strategic Resources) was created to service the needs of the organization in critical cross-cutting areas like human resources, information systems, strategic planning, etc. In addition to the core divisions, a new structural entity, External Relations and Communications, was created to support and focus on the new advocacy work role. Legislation will be modified and streamlined to support the new structure (e.g. repeal/revision of previous Ministry Acts).

At December 1994, the internal structure of the AEUB had yet to be defined in detail, though eventually it would have to account for the merger of the two Boards. It is expected that the future AEUB structure will evolve using some of the already completed CORP work of the previous ERCB. Quasi-judicial aspects of the AEUB will be strictly maintained, though there is expected to be improved cooperation between the ADOE and AEUB to explore expected joint administrative efficiencies between their operations.

Over the reference period, there is also a significant change required in establishing new formal processes to complement the re-structuring and the overall strategic objectives of

the organization. A common element underlying all new processes is improving the horizontal linkages, both within the Ministry and with stakeholders, to broaden the base of input on analysis and decision-making and improve overall efficiency and productivity.

Formal systems and structures will emphasize desired organizational attributes of:

- responsiveness,
- flexibility,
- horizontal communication,
- consultation with stakeholders,
- improved efficiency,
- streamlining,
- elimination of overlap and duplication.

Critical formal processes to the Desired organization include:

- **Decision-Making.** Decision-making processes in the Desired organization are envisioned to emphasize increased horizontal linkages and participative styles. The ADOE is to utilize a formal Executive Committee as the focal point for major decisions, comprised of senior officials from across the organization. The Desired organization is envisioned to have a well-developed process of making, implementing and communicating decisions.

- **Business Issues Management.** This process refers to the management of the Ministry's ongoing business. At any given time, there are numerous specific business issues facing the Department (e.g. equity management and divestiture opportunities, royalty policy issues, research, budgeting and planning issues, land and tenure policy issues, intergovernmental interactions, program initiatives, etc.). Identifying, prioritizing, deciding, implementing and monitoring the ongoing business activities of the Ministry are centrally important tasks.

  In the Desired organization, business issues management processes are likely a good candidate for more systematic planning and control, consistent with the vision for process re-engineering to improve efficiency and effectiveness. However, the process of business issue management itself is not specifically identified in the initial business plan as an area for attention in the Desired organization.

- **Information Flow/Communications** (i.e. internal and external). Both the Previous and Desired organizations contain separate Communications structures recognizing the important communications activities the Ministry is involved in. In the Previous organization, each previous Ministry unit was responsible for its own external and internal communications, subject to certain controls exercised by the corporate communications group (i.e. advertising, printing, audio-visual, etc.). Most had well-developed formal processes for external communication though strong internal communications were not consistently developed in all Previous entities. Also, communications planning among agencies was infrequent and not coordinated Ministry-wide.

  In the Desired organization, open and frequent communication and information flow are a central feature. The change program espoused in the initial three-year business plan is relatively silent on increasing internal organizational

communication. During the process of change itself, open and frequent communications is even more critical, to offset the ability of misinformation to impede change objectives. In the Desired organization, there are substantial opportunities for improved communications and information flow, both within and between the Ministry's two structural entities, as well as between the organizations and the Minister's Office.

- **Human Resource Processes**. The Desired organization is facing many different challenges from the Previous organization, and requires process modifications to several related human resource activities including:
  - hiring/downsizing
  - performance evaluation
  - reward/compensation/benefits
  - career development
  - personnel deployment
  - retaining expertise given compensation restraint and a vibrant energy industry
  - employee counselling
  - position descriptions and classifications

The fact that the change process involves merging several previously distinct organizations raises several important human resource issues in the immediate term including:

- union/non-union issues (e.g. as entities merge)
- accommodations issues as entities merge and shrink
- fixed asset issues as entities merge/shrink
- hiring/layoffs as overall organization down-sizes

Management of human resource issues will be critically important to the Desired organization in meeting its change objectives. The change program as espoused

in the three-year business plan is relatively silent on re-engineering human resource activities in support of the change objectives. These processes will be critical to reinforce desired organizational objectives.

- **Information Management**. Information management processes are critical to both the Previous and Desired organizations. Much of the ongoing business of the Ministry involves significant data collection, storage and analysis so information management strategies and systems can offer particular advantages if properly utilized.

  In the Desired organization, information technology is envisioned to offer substantial synergistic Ministry-wide benefits to the organization. The organization is envisioned to improve consistency of systems and use, enabling better and more frequent communication among units to improve horizontal linkages. The organization relies heavily on information technology to do its business and dedicates substantial resources to this area.

  It is also envisioned that there is likely synergy between the ADOE and AEUB in information management though at December 1994, a systematic review of opportunities for efficiency improvements was in its infancy.

  The Desired organization is relying on benefits from improved use of information technology to yield improved effectiveness. The three-year business plan identifies much of the three-year budget reductions to come from efficiencies gained by introducing improved information technology throughout the organization. An early success story is the increasing compatibility of systems and subsequent increased use of electronic mail in the organization, which has contributed to improved horizontal linkages.

- **Strategic Planning**. As already discussed, systematic, detailed strategic planning was not utilized heavily in the Previous organization. Strategic planning processes are envisioned to be well developed and more systematic in the Desired organization with the three-year business plan providing the foundation for planning.

g. Informal Structure and Process

The informal structure and process component of the organizational model is a **major change element** between the Previous and Desired organization.

As mentioned in the context of formal structure and process, the Desired organization is characterized by its responsiveness, flexibility, consultative and participative decision-making and overall behaviour. These same traits carry over into the desired informal structure and process components as well.

Generating an organization with these characteristics will require a different culture and power bases in the organization relative to the previous one. Most important is a change from the previous "silo-mentality" prevalent in the ADOE and former Agencies, to a team approach that rewards participative, consultative and increasingly horizontal approaches to problem-solving. Power bases are expected to shift from particular individuals, divisions and agencies in the Previous organization to the Executive Committee in the Desired ADOE.

h. People

The People component of the organizational model is a **modest change element** between the Previous and Desired organizations.

Although total numbers of staff in the organization are expected to be reduced by up to 20% over the reference period, the technical skills of the organization will not change dramatically from Previous to Desired organizational states. The nature of the people in the organization will not change dramatically as efficiencies are expected more through process improvements, making a reduced staff complement more productive. Nonetheless, there is likely to be some pressure for staff to broaden their skills to cope with down-sizing and still help contribute to organizational efficiency and productivity goals. A buzz-word in the organization has been to nurture "knowledge workers," who will have a greater capacity for broad problem solving and not be as specialized in their function as previous staff.

The organization must strive to maintain a broad array of skilled, qualified employees to operate in the new environment. This requires a broad group of engineers, accountants, economists, administrators, financial analysts, etc, able to be open, responsive and largely self-directed, taking a genuine pride in public service.

An important consideration for the Desired organization is change in the senior management team. It is often observed that momentum for significant change comes from outside the organization. In the case of the Ministry change program, this is consistent. The government selected a new Premier in December 1992. The Premier appointed a new Minister in December 1992. The Minister appointed a new Deputy Minister effective January 1994. The Deputy Minister appointed two existing Assistant Deputies in February 1994, and two new Assistant Deputies and the Executive Director of External Relations and Communications in mid 1994. The Minister also appointed a new Chairman of the AEUB in February 1995 from outside the organization. These changes have enabled the organization to challenge past ways of doing business and bring new ideas into the organization, an important contributor to achieving adequate momentum for change.

TABLE 6 - Summary of Previous and Desired Organizations

MODEL ELEMENT	PREVIOUS ORGANIZATION	DESIRED ORGANIZATION
Environment (Modest Change)	- volatile economic, technical, political - sometimes adversarial with stakeholders, especially in royalty discussions	- volatile economic, technical, political - political commitment to restraints - inherently conservative planning - commitment to future scanning - more cooperative with stakeholders
Resources (Major Change)	- generally non-constraining - $95 million budget in 93/94 - annual budgeting - declining resources trend since 1989	- 23% budget reduction over 3 years - $73 million budget in 96/97 - longer-term budget certainty (3 years)
History	- 6 histories, though common elements - over 20-year history for agencies - over 50-year history for Boards/Dept - PUB transferred to Ministry in 1990 - heated jurisdictional disputes/NEP - market interventionist attitudes	- 6 histories forced into 2 paths - very different merging histories likely to have implications for competing and conflicting merging cultures - different political parties at federal and provincial level (seeds for dispute?)
Strategy (Major Change)	- largely unclear, unstated, uncoordinated - conflicting policy from ABCs - lack of focus in core areas (e.g. oil sands) - little mission, vision, mandate-building - formal strategy at micro levels only - overall strategy informal and determined largely by DM/Agency heads	- clear, stated, coordinated - Ministry-wide coordination - performance measures - three-year business plans **8 change strategies** - develop program devel/eval. criteria - develop oil sands strategy - develop research strategy - implement re-structuring - regulatory review - feasibility of altern. financial vehicles - re-engineer business processes - assess merit for one window info

TABLE 6 - Summary of Previous and Desired Organizations (Continued)

MODEL ELEMENT	PREVIOUS ORGANIZATION	DESIRED ORGANIZATION
Work (Modest Change)	**ADOE** - administer mineral rights/agreements - policy advice to government - administer fiscal/royalty regimes - administer energy-related R&D - large pockets of routine, repetitive, bureaucratic work **AOSE** - manage oil sands equity investments **AOSTRA** - develop oil sands/heavy oil technologies **APMC** - market crown share of crude oil - represent Province at regulatory forums **ERCB** - appraise reserves/productive capacity - appraise resource requirements - conserve/prevent resource waste - pollution control/environ. conservation - ensure safe, efficient industry practices - record and disseminate information - provide information/advice to govt - review development for public interest **PUB** - set utility rates in Alberta	**Ministry** - develop policy - delineate/dispose mineral resources - collect resource revenue - regulate industry operating practices - support energy research - manage oil sands equity interests - assess resource base and markets - open, fair, efficient project assessment - collect and disseminate resource data **Continual Review to Consider** - privatization - out-sourcing - rationalization - re-engineering - streamlining - divestiture **New advocacy role** **Reg. Review to shape future work**

TABLE 6 - Summary of Previous and Desired Organizations (Continued)

MODEL ELEMENT	PREVIOUS ORGANIZATION	DESIRED ORGANIZATION
Formal Structure and Process (Major Change)	- six independent structural entities - mainly "in-house" processes - little coordination among agencies - traditional vertical hierarchies (silos) - vertical decision-making processes - largely incompatible systems - DM/Agency heads key decision point - limited out-sourcing (AOSE) - project-specific mgmt (AOSTRA) - uncertain leadership (acting heads) - legislative requirements - pro-active formal process (ERCB)	- two independent structural entities - AEUB quasi-judicial independence - Executive Committee decision-making **Efficient formal management processes** - decision-making - business issues management - information flow/communications - human resources - information systems - strategic planning
Informal Structure and Process (Major Change)	- vertical processes - overlap and duplication of systems - little cross-divisional communication - power with DM/Agency Heads - bureaucratic, - command and control - "rowers" - very independent cultures at ABC's	- improved coordination/cooperation among divisions and ADOE/AEUB - increased horizontal linkages - increased responsiveness - increased flexibility - increased stakeholder consultation - participative decision-making - increased efficiency - streamlined operations - eliminate overlap and duplication - power with Executive Committee
People (Modest Change)	- 1396 employees among six entities - several longstanding employees - professional, technical staff - several temporary/contract (AOSTRA)	- 1114 employees among two entities - challenge to retain staff with wage restraint and strong industry - human resource strategies more critical - "knowledge" workers

3. Organizational Model - A Broader Dynamic Perspective

In the context of the Nadler and Tushman organizational model, the change program in the Alberta Ministry of Energy can be viewed more broadly (i.e. macro sense) over time as follows:

- **December 1992 - Congruence of the Previous Organization.** Just prior to the change in government leadership, the organization was in relative equilibrium (i.e. congruence). Given the particular organizational history and environment (e.g. economic, technical, political), the organization was effectively converting its resources into desired output through an (unstated, uncoordinated, uncertain) strategy and a combination of work, people, and formal and informal structures and processes.

- **December 1992 - People.** Changes in executive leadership occurred including the Premier and Minister of Energy.

- **Spring 1993 - Environment.** Incremental changes in the organization's environment (e.g. political willingness, commitment and mandate to change due to fiscal pressures) began to challenge the equilibrium. Relatively informal planning began around adapting to the new environmental forces, with remaining uncertainty over the magnitude of change. The organization was experiencing incremental change or organizational tuning. In addition, government-wide change activities were escalating, including the ABC Review, a voluntary severance program and the elimination/rationalization of nine former government departments.

- **June 1993 - Environment, People.** The election results provided a strong mandate for change and reinforced change commitment, awareness and

realization among the organization and throughout government. It became clear that major sustained change would persist. At about the same time, the organization became aware that its long-standing internal leader (Previous Deputy Minister) had chosen to pursue private sector opportunities. In addition, another long-standing Assistant Deputy Minister retired, creating considerable uncertainty and change for the organization about its leadership.

- **August 1993 - Resources.** During August 1993, a major external shock to the organization's resources came from a government requirement to commence planning for 20% and 40% budget reduction scenarios over a three-year period. Only pockets of the Ministry had ever considered or planned for such major reductions in the past. This broke the organizational equilibrium and began a more formal planning process in recognition that the previous combination of strategy, work, people and formal and informal structures and processes could no longer convert such reduced financial resources into desired outputs.

- **Fall 1993 - Work.** Over the fall of 1993, efforts focussed on prioritizing work activities and identifying ones that could be discontinued to assist meeting the new resource constraints and still meet overall organizational objectives. Certain work activities were successfully identified for out-sourcing, privatization or change in scope (e.g. Energy Efficiency Programs, Renewable Energy Programs), but this could not offset the full impact of the resource shock on organizational effectiveness.

- **November 1993 - Formal Structure and Process.** Outside consultants were retained to conduct an organizational review and recommend revised structures that could assist in meeting organizational objectives amid reduced resources. In January 1994, a major structural change to the organization was recommended. The re-structuring was approved and announced publicly in February 1994.

- **February 1994 - Strategy, Resources.** The initial three-year business plan of the Ministry was released publicly which outlined the strategic direction for the organization including the desired change program and confirmed the budgetary reduction over three years at 23%, bringing certainty to the resource inputs for the Ministry.

- **January 1994 onwards - People.** In January 1994, a new Deputy Minister for the ADOE commenced duties. In February 1994, 2 existing Ministry employees were appointed as Assistant Deputy Ministers to two of the four new ADOE divisions. In March 1994, an open competition commenced for the Chairman of the AEUB, the two vacant Assistant Deputy Minister positions, and the Executive Director of External Relations and Communications in the ADOE. In mid 1994, the Executive Director of External Relations and Communications was appointed from within the organization. In July 1994, the Assistant Deputy Minister of Oil Sands and Energy Research was selected from within the organization, though from a different agency (i.e. PUB). In August 1994, the Assistant Deputy Minister of Operations and Support was selected, a promotion from within the ADOE. In February 1995, the Chair of the AEUB was selected from outside the organization.

- **September 1994 - Environment, Formal Structure.** In September 1994, an external shock occurred as the government announced the creation of a Science and Research Authority, to improve coordination of government research activities. This event raised some uncertainty within the organization regarding the research roles and relationships of the Ministry and the new Authority.

- **November 1994 - Environment, People.** In November 1994, another external shock hit the Ministry in the proposed appointment of a former Cabinet Minister as Chairman of the AEUB. Reaction was negative by most stakeholders, resulting

in the withdrawal of the proposed appointment by the Premier the following week. In early November, a new search process for an AEUB chair was initiated.

- **December 1994 - Formal and Informal Processes, Lack of Organizational Congruence.** By December 1994, there were increasing examples of struggling organizational effectiveness (i.e. lack of congruence of the organizational model), especially in the areas of business issues management and decision-making processes. Implementation of the change program was struggling in certain areas, due to factors both internal and external to the organization.

Overall, the first 18 months of the change program concluded with an obvious lack of equilibrium among organizational model elements. The objectives of the change program had clearly not yet been attained. Change was not necessarily proceeding at the pace desired by the Minister or government, who remained frustrated at times over the perceived slow progress. This is an important source of external pressure for change on the organization. Nadler and Tushman observe that strategic organizational change takes anywhere from 3 to 7 years to be implemented successfully. This expected pace of change is typically not consistent with government expectations, desires, or political mandates, not only in Alberta but everywhere. It has implications that should be considered upfront in government re-engineering activities going on throughout much of North America and indeed the world. Regardless of externally-based frustration over the pace of change, the executive team also had developed broad awareness of problem areas by December 1994 and recognized the need for certain improvement strategies.

B. Types of Organizational Change

Nadler and Tushman categorize organizational change based on the scope or magnitude of change (i.e. incremental, strategic) and the positioning of the change in relation to key external elements (i.e. anticipatory, reactive).

The change program in the Ministry of Energy is clearly that of a Re-Orientation. The change is strategic, requiring major shifts in model components of formal structure and process, and informal structure and process, and modest shifts in model attributes of work and people. These changing attributes were identified in detail in the Organizational Model section earlier. All model components undergo modest or major change. Especially critical are large magnitude shifts in business processes, both formal and informal, enabling the Desired organization to perform its work more efficiently than previously. This has implications for a strong emphasis on process re-engineering.

Also, the change program is clearly undertaken in anticipation of future events. Although initially launched in response to an external threat brought about by shrinking resources, the time horizons available for reacting to the resource constraints are such to enable a carefully planned, systematic approach to organizational change. The organization is not immediately facing a threat to its existence, but will if it does not respond to the environmental and resource pressures it is facing.

C. Types of Organizational Change Management

Nadler and Tushman also characterize change based on intensity and complexity. The change program under way in the Ministry of Energy is very intense, involving large shifts in most model components. Such shifts in model components require time to implement and the magnitude of change ensures an intense organizational reaction to it. Especially important in creating high levels of intensity around the change program is the combination of the knowledge by staff of sizeable layoffs associated with the change, together with lingering uncertainty over the areas that will be impacted, and the timing of layoffs. This has increased anxiety in the organization and led to increased intensity. Nadler and Tushman acknowledge that Re-Orientations involve relatively high intensity, and that high intensity change requires strategic change management. The case of the change program in the Ministry of Energy reinforces this statement.

The type of change management required is also a function of organizational complexity. The Alberta Ministry of Energy is a relatively large (Previous organization over 1300 employees) and diverse organization (e.g. volatile environment, technically oriented, large number of stakeholder interactions, multiple tasks) which can be easily and quickly characterized as complex. The organization processes thousands of transactions on a daily basis, requiring administration systems larger than most major corporations. The organization is Canada's largest marketer of crude oil. The organization is responsible for the collection of about $3 billion of resource revenue from industry a year. The organization regulates virtually all aspects of energy industry development, from issuing mineral agreements, to exploration, to development, to production, to abandonment, to setting rates on public utilities. The organization sets the policy framework for energy industry development, requiring ongoing monitoring and adjustment as the environment changes. The organization is also a central player in energy-related research activities. Ministry stakeholders include virtually all Albertans including industry, other government departments, the general public, utility consumers, etc. Clearly, this overall combination indicates an organization that is complex.

The combination of high intensity and high complexity results in a required management of change program that is also very strategic and well planned. Clearly, the program of change in the Ministry of Energy is a case for strategic organizational change management, as opposed to simpler management techniques including change through normal management practices or transition management. The combination of complexity and intensity guarantees a high difficulty of change.

D. Managing Organizational Change

Nadler and Tushman identified 10 principles for effective strategic organizational change programs of an anticipatory nature (i.e. Re-Orientations). These principles offer insight into the process of managing change in the Alberta Ministry of Energy.

1. Diagnosis

Nadler and Tushman observed that successful strategic organizational change requires careful analysis of fit of organizational design with the external environment. In the Ministry of Energy, a fairly extensive diagnostic phase was undertaken towards this end.

Prior to the Ministry-wide change-planning effort that commenced after the June 1993 election, certain Ministry entities had undertaken organizational planning exercises on their own. Examples include the CORP project at the ERCB and preliminary environment-scanning at the ADOE. These and other early planning efforts around the organization provided the early foundations for change.

Commencing in August, 1993, the Minister assembled a team of senior Ministry officials to begin a Ministry-wide exercise of developing organizational responses to government-imposed budget reduction scenarios of 20% and 40% over the three-year planning horizon. This was the first time that all Ministry ABCs gathered together for comprehensive joint planning sessions. A critical aspect of the review became known as the "Future Scan", largely a **data collection exercise** led by the ADOE to identify and summarize the key **organizational threats and opportunities** the Ministry was facing. The Future Scan considered specific **economic, political and technical** factors.

Later in the fall of 1993, the government required that all Ministries develop three-year business plans, outlining overall directions and detailed strategies for dealing with the necessary fiscal restraint programs being initiated to eliminate the provincial budget deficit over a three-year period. This became a logical next phase in the Ministry's own strategic planning exercise begun on a Ministry-wide basis in August. This requirement added certain bounds and constraints on the planning process to remain consistent with the rest of government, which was going through the same exercise. The early work was transformed into the required formats, and again extensively reviewed and refined as

necessary. The Ministry included as an Appendix to its three-year business plan the key expectations for the business environment, derived from the earlier "Future Scan." The initial three-year business plan is included in Appendix 3.

Although the strategic planning process in the Ministry was proceeding cooperatively, there were obvious differences of opinion among senior officials on certain detailed aspects, especially structural elements. Certain senior officials, especially at the ABCs, felt strongly that their organizations should continue to exist. In certain cases, mixed signals were sent to organizational staff understating the probability of future structural change, especially in the more onerous budget reduction scenarios. Unable to reach consensus on their own, Ministry officials approached the Minister in the late fall of 1993 to request retaining expert outside consultants to also provide input to the process. Management consultants were retained to consult broadly and to review the organizational issues to provide recommendations to the Minister on structural changes. The consultants met with over 200 individuals and groups both within the Ministry and in the external environment to formulate their recommendations. They used this consultation, together with the earlier work of the Ministry itself, as the basis for their analysis and recommendations.

Together, these events comprised the bulk of the diagnosis phase of the Ministry's strategic change program. These events did provide for systematic data collection and analysis about the organization and its operating environment, examining environmental, technical and political influences to identify critical threats and opportunities. The initial work was conducted over a relatively short period of time (i.e. five months), though with considerable resources, focus and commitment from executive levels of the organization. However, it is not clear that lower levels of the organization had considerable input into the diagnosis stage, which likely had implications on future commitment and support for the change process throughout the organization. It is also not altogether clear that the exercise was continued in any comprehensive fashion after the initial effort.

The use of external consultants to assist this phase is also an important issue. The consultants eventually became central to the review exercise, at least as it pertained to structural issues. This was useful in bringing an independent expert view to the analysis, necessary in this case given the bias that existed among senior officials to their previous organizations due to their historical experience and degree of autonomy. It was clear that the senior team disagreed on the need or extent of structural rationalization and the consultants helped the Ministry address this issue. However, retaining consultants also ultimately distanced certain members of the executive team, especially at the agencies, from the structural analysis, probably weakening overall commitment to the ultimate change program that was instituted. This became a necessary trade-off. Complicating matters was inconsistent participation by the executive team in the planning exercise, and changes in the senior team that were periodically occurring through this period. Senior officials did not necessarily have the same vision or commitment to the overall process.

Overall, the change process in the Ministry did appear to utilize diagnostic techniques as envisioned in the Nadler and Tushman model. The phase was not perfect. It perhaps did not involve all staff throughout the organization, and as such may not have maximized the opportunity to build commitment to the change. Nonetheless, this phase of the change process was clearly initiated with some success, providing a good foundation for, and early momentum towards a successful change process. It also raised the expectations for enacting changes of the kind envisioned in these diagnostic exercises. A final important observation on diagnosis is that the exercise was really focussed mainly on the ADOE and former agencies (e.g. AOSE, AOSTRA, APMC), and did not address the issues to the same degree for the regulatory boards (e.g. ERCB, PUB).

2. Vision

Nadler and Tushman observe that successful Re-Orientations require a clear and well defined "vision" of the future state or Desired organization. In the case of the Alberta

Ministry of Energy, the three-year business plan is the central mechanism, and in fact the only organization-wide mechanism for development of the Ministry vision.

Much of the background work for the initial three-year business plan was carried out in the late fall of 1993. As a requirement of the government's overall planning activities, all Ministries were required to develop a three-year business plan following a rigid format including :

- mission statement,
- mandate,
- three-year spending targets,
- goals, strategies and actions,
- implications of key program and policy changes,
- expected results and performance measures.

The three-year business plan was intended to be the blueprint for defining what the Ministry intended to become as well as how it intended to get there, recognizing rigid fiscal targets. The initial plan was much more focussed on "how" the reductions would be implemented (i.e. change program) than on "what" the organization should look like or be (vision, values, etc.), though subsequent plans have evolved more to the latter. The initial three-year business plan was developed out of consultation at the highest levels of the organization (e.g. executive team). It is not clear that the initial plan was subjected widely to lower levels of the organization for input. This likely inhibited its initial acceptance by the entire organization as the central vision statement for the Ministry.

The original plan is also relatively sparse on details pertaining to organizational objectives or change programs as they relate to the regulatory boards.

Development of the plan included several meetings and iterations involving senior officials of the organization including the Minister, who ensured early vision-building was consistent with overall government objectives. Certain input was also provided by industry stakeholders. After the Minister and senior officials became comfortable with plan content, business plans were also scrutinized and approved by political standing policy committees comprised of selected Cabinet Ministers and "back-bench" government politicians. Overall, the business plan represents the fundamental desired strategic organizational change program of the Ministry.

The initial three-year business plan was released publicly in February 1994, shortly after the announced re-structuring. For many in the organization, this was probably the first opportunity they had to view the plan. However, despite its public availability, most staff were likely unaware of the central strategic importance of the plan as it was not circulated widely or promoted extensively throughout the organization. Despite these shortcomings, the plan does contain an articulate and well-developed vision of the senior staff at the time it was prepared.

The required rigid format of the three-year business plan encompasses virtually all components of successful vision-building emphasized by Nadler and Tushman, including descriptions of the future state and change programs, performance objectives and commentary on organizational context and fit with the external environment. The plan is also intended to be a "living" document, updated continually and published annually.

Prepared largely in late 1993, the initial three-year business plan was prepared prior to several of the senior staff changes in the organization, which inevitably led to uncertain commitment to its goals by organizational successors. Nonetheless, the plan was an

excellent starting point for the organization in vision-building, and was even recognized by the media as comparable in quality to private sector plans. The intent of requiring three-year business plans was to make government more business-like and strategic in its operations.

Specifically, the initial three-year business plan for the Ministry of Energy emphasizes:

- effective, orderly and responsible resource development,
- being more business-like,
- a streamlined regulatory framework,
- minimizing the administrative burden to government and industry,
- simple and rational business processes,
- elimination of overlap and duplication,
- being more industry-focussed,
- ensuring fair, effective and efficient regulatory processes,
- being more open, accessible and accountable to relevant stakeholders,
- consulting relevant stakeholders in all aspects of Ministry operations.

The plan could be used to build and reinforce commitment to the desired vision of the organization. The plan should be circulated widely throughout the organization and

externally. The plan also needs broad input from the entire organization, including the AEUB.

The vision established during the three-year business plan process is **directional, signalling and educational.** The plan was **not used extensively as symbolic**, and could be more so in the future. Nadler and Tushman recognize that the vision statement is often the place to return to reinforce organizational objectives.

The Ministry got off to an excellent start in its change program through its initial three-year business plan. Nonetheless, the plan needs to achieve greater awareness and input from relevant stakeholders both internal and external to the Ministry. Especially important is shaping the plan and future planning processes to gain improved broad commitment and recognition by the current management team and their staff, as the initial plan pre-dated many of them.

3. Energy

Nadler and Tushman recognize that energy must be created to initiate a change program. Energy is also required to sustain a change program. Organizations are inherently stable and the Previous organization was no exception, comprised largely of similar strategies, structures, systems, values and beliefs throughout much of the previous twenty years.

The energy required to initiate the change process came largely from external forces (e.g. elected officials, industry stakeholders, general public) pressuring the Ministry to conform to the new fiscal realities. The fiscal reality and government objective of eliminating the deficit over the three-year planning horizon was clearly the lead force driving the change program. This energy was created in the external environment itself. Albertans appeared to have reached a level of frustration and dissatisfaction with the government agenda up until the government leadership change in late 1992. This was

evidenced by extremely low popular support for the governing party just prior to the leadership change.

As both the government and opposition parties prepared for the election in the spring of 1993, platforms were based on reversing the fiscal problems through deep spending cuts in government programs. This strong new platform, together with the change in leadership, resulted in the re-election of the Progressive Conservative Party, with a Liberal Party opposition that had campaigned on a similar platform of drastic spending reductions. The New Democratic Party, whose platform was less focussed on spending cuts, was not elected to a single riding. The message for change from the voters was clear and provided the energy to initiate a "re-engineering" of government. These fiscal pressures acted across all government departments, including previously untouchable ones like health, education and social services.

Within the organization itself, energy for change was created initially by the Minister, who was responsible for ensuring that the Ministry's activities were consistent with overall government objectives. The Minister was centrally involved in planning the government's overall re-structuring activities through participation on the Agenda and Priorities Committee and Treasury Board. Some early government-wide change initiatives included the ABC Review, elimination of 9 government departments, and a voluntary separation program which resulted in employees leaving the government, including the Energy Ministry, in relatively large numbers for the first time.

While talk of pending change, reinforced through government-wide activities had been prevalent for several months, the definitive moment where energy to initiate change was effectively transferred from the Minister to the organization was at the August 1993 meeting of Ministry senior officials. The Minister conveyed the focussed government objectives of fiscal responsibility and directed the organization to work together to assess the implications of large-scale budget reductions on the Ministry as a whole. This action

gave the necessary authority and responsibility to the Ministry senior officials to jointly develop the response to the pending budget reductions. This was perhaps the first time that the severity of looming budget reductions became apparent to Ministry officials and re-focussed the thinking from whether significant reductions would occur to how the Ministry would deliver them. After this event, the Minister remained actively involved in the development of the change program, including iterative development of the three-year business plan and participation in the consultant's process reviewing Ministry structures broadly with stakeholders. After change plans were approved and announced by the Minister and government in February 1994, the Minister's role in the change program changed somewhat to a more periodic, high level oversight role rather than more intensive daily involvement in change planning and implementation. Detailed change implementation responsibility was effectively delegated directly to the Ministry organizations and senior officials themselves.

Nadler and Tushman observe that successful Re-Orientations require **creating a sense of urgency** throughout the organization to enact the change. Energy and urgency are typically created by the organization experiencing pain, or growing frustration, inefficiency and reduced productivity arising out of a mismatch of the organization's fundamental design (combination of work, people, formal and informal structures and processes) with its operating environment. Recognition of pain throughout the organization is often created by widespread participation of employees in the data collection and planning activities that are required to undergo a change program, enabling them to recognize the mismatch first-hand.

Experiencing organizational pain has certain negative consequences, including the realization that certain employees may choose to leave the organization to escape the pain. This is common in major change programs. More importantly though, experiencing organizational pain contributes positively by building commitment to change objectives, which in turn provides sustaining energy to carry out change activities.

Significant pain, urgency and energy were created at the senior levels of the organization to address the key change issues, though this energy did not appear to be consistently communicated, transferred and sustained at lower levels of the organization in all ABCs. Different ABCs had different approaches to their participation in the change planning exercise, with some participating only at a very high level, while others engaged a broader group of employees in reviewing and developing the change process. One year after implementation, there still appeared to be pockets of resistance to change throughout the organization as they had not fully participated in the development of the change program.

The elected officials, largely through Treasury Board planning which involved the Minister, continued to undertake government-wide change initiatives that were also important factors in sustaining energy for change. Rigid requirements for development of comprehensive, government-wide change plans including three-year business plans, regular budget updates, critical path modelling for major initiatives, performance measures and joint communications forced government departments to continually engage in certain rigid change planning, providing sustaining energy to the change program.

Clearly, there was sufficient energy created to initiate change, and there were some frequent, regular external sustaining influences on the organization from the elected officials and Minister contributing to sustaining momentum. There also appears to be considerable energy for sustaining change internal to the organization itself, though this energy may not have been effectively recognized, coordinated or built upon to optimize its use for smoothing and accelerating the transition. Pockets of staff throughout the organization had very different perceptions of the need, scope and magnitude of the change process which resulted in very different levels of pain and commitment throughout.

4. Centrality

Nadler and Tushman observe that for change to successfully engage the entire organization, it must be clearly linked to the core strategic issues of the organization. If the central premise of change is not viewed as necessary, the change program risks being only weakly adopted throughout the organization. There is an important distinction between commitment and compliance as they pertain to the central premise. It is important that staff become genuinely committed to the central issue of change, as opposed to just compliant towards it, as many start out. In the Ministry of Energy, the **core strategic issue for the organization is improving efficiency and productivity to effectively conduct its future activities amid sharply reduced financial resources.**

While the point of delivery of certain activities was targeted for change (e.g. energy efficiency programs, renewable energy demonstrations, marketing of the Crown's crude oil), fundamental core responsibilities and mandates of the Previous organization compared to the Desired organization are largely similar. As such, the key change issue facing the organization was not so much changing the scope of its work, but more how it would conduct it, especially for the ADOE. It is no surprise then that the change program as described in the initial business plan emphasizes **structure and process improvement** including streamlining, reducing overlap and duplication, re-engineering business processes, etc. These activities all support the underlying generic central premise of improving efficiency and productivity to provide services in a more cost efficient manner.

Complicating matters for the Ministry in addressing its central strategic issue is an external shock in the environment brought about by the sharp recovery in energy industry activity since 1992 which increased demands on several parts of the Ministry. Much of the ADOE's core business involves administering mineral lease disposition and collecting revenue generated from industry activity (e.g. royalties, lease rentals, etc.). The AEUB regulates industry development activity from the earliest stages (e.g. exploration) to final

production and facility abandonment. As such, as activity levels increase in the industry, the workload of the Ministry also increases. More rights are administered. More revenues are collected. More facilities and activities must be regulated. The upsurge in industry activity has placed even greater demands on the Ministry in coping with budget reductions, increasing the relative impact of the reduced resources on the organization.

It is clear that the desired change program defined by the initial three-year business plan is linked to the central issue of improving efficiency and productivity, largely through structural and generic process improvements. However, it is unclear whether the organization has fully recognized this as the central premise in actual change implementation to December 1994, appearing to focus more heavily on re-structuring activities than process improvement ones. This may have contributed to the difficulty of the transition as well, as certain structural elements are likely dependant, at least in part, on certain process re-engineering decisions. Efficiency and productivity improvements have clearly been recognized as an important aspect of change throughout the organization, though this central premise may not have always been recognized as the paramount aspect.

5. Three Themes

Nadler and Tushman observe that while strategic change may involve several specific activities, it is most effective when the number of themes driving change are limited. Successful change programs are also characterized by consistency of themes over time.

In the Ministry of Energy, the change program through the first year was successful at promoting only a limited number of themes. In fact, the three-year business plan again is the place to look to identify desired themes of change for the Ministry. These themes driving change are espoused in the stated goals of the Ministry (details including underlying strategies were provided in Section III.A.2.d - Strategy) including:

Goal 1 - Maximize the value of Alberta's Energy and Mineral industries to provide greater benefits to Albertans

Goal 2 - Achieve greater efficiency and productivity [20]

In reviewing the core Ministry goals and strategies emphasized and undertaken in the year since the organizational change was announced, the Ministry appears to have devoted considerably more energy to certain underlying stated strategies of Goal 2 (e.g. organizational restructuring, Regulatory Review, re-engineering business processes), though appears to have done so somewhat in isolation from the overlying strategic theme/goal. As such, overall goals/themes have perhaps been diffused somewhat in their emphasis as they have been overshadowed by some of the underlying strategies. The organization may not associate a particular strategy with its overriding goal.

A good example is the Regulatory Review, which has proceeded relatively smoothly with widespread recognition at senior levels of its ongoing success. Despite this successful implementation, few in the organization (especially the ADOE) would likely identify and characterize the activity as a critical strategic element of improving efficiency and productivity in the organization. In fact, few in the organization would likely have more than a superficial knowledge of the objectives and status of the Regulatory Review. The initiative has been successful in its own right, yet perhaps has not reached its ultimate potential by not being perceived to be associated with a central theme of achieving greater efficiency and productivity in the organization, especially within the ADOE. Instead, the Regulatory Review was somewhat "orphaned" from its overriding goal in the first implementation year of the change program, and likely was not perceived by many in the organization as a core central component of the change program. This perception may have resulted from the fact that the Regulatory Review was initially launched as a government-wide change activity, ahead of the Ministry's own change program. Despite it being identified in the three-year business plan as a central component of the Ministry

program, it never really did gain this recognition internally in the initial year of implementation.

Organizational re-structuring activities suffer from just the reverse problem of the Regulatory Review. That is, structural change has been perceived by many in the organization to be the change program, when in fact it is but one of several desired change initiatives designed to achieve the organizational objectives of the three-year business plan. Even very senior levels of the organization have at times become engrossed in re-structuring activities, at the probable expense of other important change initiatives. Senior staff may have perceived finalizing the structural elements as a pre-requisite to getting on with other change activities by more clearly establishing responsibility and authority relationships.

Certain other important themes to have emerged in the ADOE in the first 18 months of the change program include an increased focus on client service, enhanced commitment to strategic planning and more team-oriented, participative decision-making. In fact, there has likely never been more meetings, strategy sessions or open and frank discussion of organizational issues among senior officials in the history of the organization.

Overall, the organization successfully limited the number of major themes of change. However, it experienced difficulty in establishing perceived linkages among certain change activities and major themes, which might have increased understanding and commitment to change. By December 1994, major themes of change had not yet clearly taken root in the organization, instead being sometimes diffused and confused by their sub-component strategic activities.

Fundamentally, change initiation activities and change content development culminated in the desired strategic organizational change program outlined in the initial three-year business plan (Table 7).

TABLE 7 - Desired Strategic Organizational Change Program

CHANGE CONTENT		PERCEIVED RATIONALE
GOAL	**STRATEGY**	
1. Maximize the value of Alberta's energy and mineral industries to provide greater benefits to Albertans	1. Establish criteria for future program development and evaluation	- improve fit with environment - improve accountability - improve efficiency - improve responsiveness
	2. Develop a vision and action plan to develop Alberta' s oil sands	- improve focus - leverage development levers - ensure industry-led
	3. Develop a coordinated energy research strategy	- streamline activities - improve efficiency - ensure industry-focus
2. Achieve greater efficiency and productivity	4. Implement Ministry's Organizational Re-structuring	- streamline activities - improve efficiency - improve consistency - eliminate overlap, duplication - improve focus
	5. Regulatory Review	- streamline activities - eliminate overlap, duplication - reduce administrative burden
	6. Assess feasibility of alternative financial vehicles	- assess industry cost-sharing - consider use of revolving funds
	7. Re-engineer business processes	- eliminate low-value tasks - reduce administrative burdens - improve efficiency - ensure fit with environment - reinforce strategic objectives
	8. Assess "one window" approach to Ministry information	- streamline processes - improve efficiency

6. Magic Leader

Nadler and Tushman observe that successful Re-Orientations usually have as a focal point an individual leader with a special feel, magic or charisma, including distinctive behaviours (e.g. envisioning, energizing, enabling), an ability to create a sense of urgency, a guardian of themes, and an appropriate mix of styles.

Several critical events occurred impacting leadership and change in the Alberta Ministry of Energy in the year preceding the change. First, the government itself underwent a change in leadership with the appointment of a new Premier in December 1992, with a dramatically different style and direction from the previous Premier. Second, the Minister of Energy was replaced shortly after the change in government leadership. Third, the previous Deputy Minister, after nearly 20 years of public service, chose to pursue private sector opportunities. After an open competition, a new Deputy Minister was appointed from outside of the organization, though from within a different area of the Alberta government's operations. These changes, especially of Minister and Deputy Minister, brought new approaches to organizational management within the Ministry. Neither the Minister nor Deputy Minister had any particular sense of ownership in the previous organization, enabling them to embark upon major change initiatives without past organizational biases. In addition, the Minister's central involvement as one of the architects of the government-wide change program enhanced her own commitment, dedication and energy for change.

Ensuring that government-wide fiscal objectives were implemented at the Energy Ministry clearly rested with the Minister, who provided the initial energy, momentum and leadership necessary to commence the strategic change process. Her own high expectations for change consistently challenged the organization to sustain and enhance its change activities. Early on, an Acting Deputy Minister assumed responsibility for leading operational aspects of change planning, including development of the initial

three-year business plan. However, it was the new permanent Deputy Minister, appointed on January 1, 1994, who was the true focal point and champion of change implementation.

The Deputy Minister was fundamentally **envisioning**, in the sense of his ongoing portrayal and commitment for change, and expressive of his desires to have the organization succeed. He set high expectations for himself and the organization, and expressed these openly to those he was in contact with. It was not always clear that the Deputy Minister's vision was totally consistent with the specific vision in the initial three-year business plan. This was another indication of the generally weak awareness and commitment to the initial plan throughout the organization, and also reflected his own commencement after the initial plan was developed.

Perhaps the strongest trait of the Deputy Minister was the fact that he was truly **energizing.** He "led by doing", demonstrating extensive personal involvement, commitment and sacrifice in the pursuit of organizational objectives and his duties as Deputy Minister. Given his strong background in Alberta's external affairs (six years in the Alberta Government's New York Office), he also maintained considerable interest and continuing involvement in many government-related activities in the U.S. and elsewhere. There were also likely greater demands on his time than most Deputy Ministers, as an advisor to the Minister and Government on non-Departmental issues given his own external interests, experience and prior contacts with many of the elected officials and Departments developed in his earlier capacities in New York. Given this broad range of duties, interests and activities, it was not uncommon for the Deputy Minister to work 14-16 hour days, including many weekends.

The Deputy Minister's operating style was collegial and open, welcoming and often seeking input of employees and other colleagues regardless of position. He was actively involved in many of the Department's business issues and had considerable interactions

with lower level staff. In the process, he became exposed to several competent middle managers in the organization and became a mentor for some of these individuals, promoting their increased involvement in high-level organizational issues and demonstrating confidence in their abilities and opinions. These traits brought about increased commitment and support for the Deputy Minister and his vision for change from most staff working relatively closely with him. These traits also sometimes challenged traditional decision-making processes in the organization. The Deputy Minister also spent considerable time with external stakeholders. Industry stakeholders commented on the open candour of the Deputy Minister as a welcome approach for government.

The Deputy Minister had less success at being broadly **enabling.** While his personal style was well suited to **express support, empathy and confidence** to those in close contact with him, he was somewhat unsuccessful at instilling these qualities across the broader organizational spectrum. His open, personal style became a point of contention to certain organizational staff that were not in close contact with him. The open style brought with it tremendous demands on his time by the diverse group of Ministry stakeholders, and made him typically less available (on demand) to senior staff than they were used to. There was also a perception in certain pockets of the organization that the Deputy Minister's increased absence from the traditional Edmonton office meant that he was not sufficiently inwardly focussed on their own organizational issues, contributing to increased frustration. This style was in sharp contrast to the previous Deputy Minister who spent most of his time in the Edmonton office. Other areas of the Department had never interfaced with the senior executive before, so perceived the openness of the new Deputy Minister as a real positive attribute, despite his increased time spent in Calgary offices or elsewhere. At times, there was unclear delegation of responsibility and accountability for various activities, resulting in periodic "orphan" issues which usually defaulted back to the Deputy Minister to manage and resolve. Unfortunately, some of these issues would be delayed further, given the Deputy Minister's own lack of time and

other priorities. These examples all kept the Deputy Minister more intimately involved in the ongoing management of several issues than might normally be the case for an organization's chief executive, and indicate less than complete success at being consistently enabling.

This level of active participation in issues management by the Deputy Minister may have been due in part to the period of transition that followed the re-structuring announcements including the delayed departure of certain previous senior officials and delayed appointments of the new executive team. Given delays in finalizing these personnel decisions, the Deputy Minister had the difficult task through this period of managing several complex Ministry issues without a complete executive team, let alone a totally supportive, co-operative, loyal and well-functioning one. It is also important to recognize that the re-structuring merged the responsibilities of four previous Deputy Minister equivalents (ADOE Deputy Minister, APMC Chairman, AOSE Chairman, AOSTRA Chairman) under a new Deputy Minister, broadening the scope of the duties of the position considerably.

The Deputy Minister was viewed somewhat differently by certain organizational staff from the former agencies, who may have partially attributed the demise of their previous organizations to him. As the focal point of change, he became the easy target in the organization for disgruntled staff to focus their change anxieties on. This aspect of the organization's culture was clearly evident during the Deputy Minister's 1994 organizational Christmas parties, which were noticeably subdued and uneasy in Calgary (largely staff from the former APMC and AOSTRA) and noticeably more lively and energetic in Edmonton (largely ADOE).

The Deputy Minister **created a sense of urgency** when required. Pressing business or strategic change issues were typically identified early on by the Deputy Minister and executive team, though the team was not always successful at achieving clear

implementation strategies and results, perhaps the result of the inconsistent visions, priorities and sometimes unclear sense of responsibility for an issue. This again often left the Deputy Minister with responsibility and accountability for many aspects of the change program.

The Deputy Minister was also effective as a **guardian of organizational themes**. As a strong advocate of re-engineering government, the Deputy Minister consistently and effectively reinforced and emphasized central change themes of improved efficiency, productivity and client service. As mentioned above, he did not necessarily promote the specific words and vision of the initial three-year business plan (developed ahead of his commencement) though generally honoured and promoted their spirit, in his own words and actions.

Finally, the Deputy Minister demonstrated a **mix of styles** in managing change. Especially early in the change program, the Deputy Minister used a variety of styles to try to build commitment and momentum for the change program. This was brought on largely out of necessity as the Deputy Minister himself officially commenced duties in January 1994, just a few months before change implementation began in earnest, though he had been involved to a lesser degree since September 1993 when he was seconded to the Minister's Office from New York. He had to get a better understanding of how the organization functioned and get to know the employees better, which required a mix of styles, depending on circumstance, including being open, participative, consultative, cautious and patient, as well as at times being decisive and withholding.

In summary, the Deputy Minister was clearly the focal point of the change program after implementation began and possessed and demonstrated many, though not all of the characteristics of Nadler and Tushman's magic leader. He was envisioning and especially energizing and used these characteristics to promote change, though had less success at being truly enabling. The Deputy Minister was also largely successful at creating a sense

of urgency, being an effective guardian of organizational themes and utilizing a mix of leadership and management styles.

7. Beyond the Magic Leader

Nadler and Tushman observe that successful Re-Orientations depend on a broader base of support for the change than just the magic leader. Leadership must expand beyond the magic leader in two directions including broadening the base of leadership to include key empowered executives, as well as instilling in the organization the desirable leadership traits, skills and processes to reinforce change objectives (i.e. instrumental leadership).

In the Alberta Ministry of Energy, **broadening the base of leadership to the executive team** was slow to develop. An Executive Committee of senior officials was created out of the re-structuring in February 1994 to become the focal point of decision-making, though was not immediately available or effective given delays in establishing two of four Assistant Deputy Ministers. Some delays were inevitable given government's somewhat rigid competition processes which are not overly conducive to early resolution (competitions across government, broad advertising, involvement of ex-Ministry officials in conducting the process, external hiring freezes, wage restraint, etc.). Once fully established in August 1994, the new executive team had varying levels of awareness and commitment to the specific objectives of the original three-year business plan, which was developed largely by an earlier executive team with different composition. While the new team in aggregate were even stronger advocates of the broad change program than the previous team, they clearly had different levels of ownership and commitment to the specific vision and activities under way given their mixed participation in their development. Until commitment and ownership of the specific vision and change program are developed among the team, broadening desired change leadership throughout the executive team will be slow to emerge.

In consideration of the other dimension of leadership, **instrumental leadership,** or establishing the framework and mechanisms to instill desirable leadership traits throughout the organization, there was also limited progress in the first year of change implementation. Delegation of responsibility for managing the overall change program was never clearly established. The re-structuring created a division (Strategic Resources) which contained many cross-organizational levers critical to managing change (e.g. human resources, information technology, financial services, strategic planning). However, new or revised internal structures and processes complementary to change objectives were slow to emerge, thus delaying their potential contribution to assisting the management of change. It took some time before the organization recognized that several of these key supporting organizational structures and processes would also require re-engineering in light of revised organizational objectives.

Responsibility for managing overall change was never formally delegated to any particular individual or group, though responsibility appeared to informally rest with the Executive Committee. Again though, the delayed effective start-up of Executive Committee left the responsibility for practical purposes often with the Deputy Minister, to be supplemented by other executive staff where appropriate. This led to a somewhat ad hoc, project-based approach to change implementation and delayed the broadening of leadership widely into the organization.

The change program as espoused by the three-year business plan emphasized horizontal, participative decision-making and a breaking down of previous divisional silos. It was some time before such traits were consciously promoted in the emerging organization through development of complimentary formal and informal processes reinforcing the desired behaviours. Examples of such institutional processes include improved business issues management (e.g. identification, prioritization, tracking), increased internal communication (e.g. consistent systems for electronic exchange), more systematic decision-making processes (e.g. Executive Committee), and more regular, consistent

interaction with stakeholders in policy development (e.g. improved feedback between various organizational contact points - Deputy Minister, ADMs, management). Some of these processes developed in a systematic, conscious manner while others appeared in a somewhat ad hoc manner out of sheer necessity. Overall though, there was limited early energy devoted to establishing supporting processes to instill desirable leadership traits through reinforcing, measuring and rewarding desirable organizational behaviours. Without such mechanisms, staff were relatively unaware, at least early on, of how their own behaviour should change to remain consistent with broad organizational objectives. By December 1994, the organization was just beginning to re-engineer internal management and business processes to assist managing change and institutionalize desired leadership traits.

Overall, the Ministry was slow to extend leadership beyond the magic leader, throughout the executive team and also into the very heart of the organization's way of doing business. This was largely precipitated by delays in establishing common ownership of the overriding vision driving change (i.e. commitment to three-year business plan) among the executive team, as well as delays in achieving critical, effective organizational supporting structures (e.g. Executive Committee, Strategic Resources Division) and fundamental supporting processes (e.g. decision-making, issues management, etc.) to reinforce desired traits and smooth the transition. An important impediment to nurturing leadership beyond the magic leader in the first year of implementation was the critical shortage of time available to the Deputy Minister and executive team to provide such leadership given their overwhelming involvement in managing the change program in addition to a very full slate of regular responsibilities.

8. Planning and Opportunism

Nadler and Tushman observe that successful Re-Orientations involve a mix of detailed planning and unplanned opportunism.

As described earlier, broad strategic planning for change through the development of the three-year business plan was fairly comprehensive. However, **detailed planning for implementation of change** in the Ministry was done more on a project basis than a systematic and comprehensive program of strategic organizational change management as envisioned by Nadler and Tushman.

Much of the planning that occurred resulted from externally imposed, government-wide, rigid planning requirements from the elected officials. The government's overall change program has been largely continuous since large-scale implementation began in June 1993, involving several key phases and milestones requiring continual input and preparations by individual Ministries. Examples include the ongoing requirement for three-year business planning, budget activities and quarterly updates, critical path modelling among Ministries, performance measures and government-wide communications. The Minister's participation on the planning-oriented Agenda and Priorities Committee and Treasury Board resulted in her extensive involvement in planning and implementation of government-wide programs, which invariably carried over and influenced planning in the Ministry as a whole.

Within the Department, the re-structuring envisioned the new Strategic Resources Division as playing a central role given that the key change levers were located there (human resources, strategic planning, budgeting, etc.). However, as mentioned in the previous section, the new division required some time to enhance its support mechanisms consistent with the new needs and desires of the organization. As mentioned in the context of instrumental leadership, change implementation responsibility was informally left to the Executive Committee, also problematic given that several months passed between the public announcement of change (February 1994) and finalizing the senior executive team (August 1994). As such, responsibility and accountability for managing change implementation was somewhat ad hoc and project specific, with ultimate default back to the Deputy Minister or other senior officials. This added considerable work and

responsibility to the core executive team that was already fully-loaded with their own responsibility areas.

There is also strong evidence that change implementation may have been hindered by a general misunderstanding of the scope of the change program. To late 1994, there remained a general perception in the organization that the change program consisted of the organizational re-structuring recommended by the management consultants instead of the broader change program described in the initial three-year business plan. This perception was likely the result of insufficient internal communication around change activities, but perhaps more importantly conveys the relatively weak awareness and commitment of the organization (senior executives included) to the initial three-year business plan as the central strategic planning guide for the Ministry. In the first year of implementation, a disproportionate amount of internal energy was spent pursuing re-structuring activities, at the expense of the other seven important change strategies outlined in the three-year business plan.

Also, the initial consultant's report provided recommendations for only relatively high-level structural changes, without delving substantially into lower-level organizational structures. Beneath the higher-level structures, there was both an inconsistent pace and process of developing final detailed organizational structures for each of the new divisions. In some instances, the consultants were also retained to assist with detailed structural planning (e.g. Oil Sands and Energy Research, External Relations and Communications). Other areas chose to develop their detailed internal structures largely independent of external support mechanisms (Operations and Support, Strategic Resources, Policy). These independent processes and paces of review contributed to lingering perceptions in the organization that the previous divisional "silos" had not necessarily disappeared. Nonetheless, these processes became increasingly important at broadening the awareness, commitment and participation of lower level staff in change activities, thus creating important energy for sustaining change.

Some obvious symptoms of ineffective implementation planning were change activities that were either straying from initial objectives (e.g. APMC Crude Oil Royalty Review), delayed (e.g. establishment of Energy Research Council), or never initiated (e.g. establishment of Industry Advisory Council for Deputy Minister). In such cases, there was clearly upfront recognition of the need for the particular change program, but progress was hindered by either unclear implementation strategies or inadequate feedback mechanisms to assess change results. For example, the Industry Advisory Council was announced as a formal structural entity to institutionalize regular industry consultation with the Department. However, the Deputy Minister had good contact with industry stakeholders informally and never felt the need to formalize this entity. Given this unconscious decision of the Deputy and the lack of a broad change-progress monitoring capability, the organization appeared to simply forget about this structure or not recognize it as a priority. While the Deputy Minister was clearly comfortable with the absence of this formal structure, it is possible that its absence could undermine an important objective of the Desired organization for a future Deputy Minister (improved regular consultation with industry). An absence of sufficient change planning precluded the issue from being consciously considered.

Despite incomplete planning for change implementation, the organization did display an ability to capitalize through **unplanned opportunism.** As unforeseen events arose during the change process, the organization had some success at responding relatively quickly and effectively to its changing environment. This characteristic was perhaps attributed to the more flexible, responsive and open style of management emerging out of the change program.

Several examples of opportunistic behaviour are evident. First is the acquisition of the Alberta Geological Survey (AGS) by the ADOE after it was targeted for elimination by another government agency. The synergy of the AGS with the Ministry was immediately identified and once approved by government, transitional arrangements were put in place

quickly and effectively. Another example includes the quick and effective internal response to a critical policy issue (Climate Change) that suddenly escalated in intensity during the change period. In response to the threat of damaging policy being imposed on Alberta from outside influences, the Ministry moved personnel and resources quickly and decisively to pro-actively debate the issue and broaden support for the Alberta position throughout a wide range of stakeholders. A third example was the successful privatization of the ADOE's Energy Efficiency Branch. After decisions were taken to discontinue funding the activity, the ADOE was pro-active and successful at promoting privatization to ensure the activity would continue. Consultants were hired to assist the process, prior employees formed an association to accept the former responsibility areas, and the Department worked with private sector utilities to have them continue a long-standing information "hot-line." These are just a few of several examples available that indicate success over the transition period at being genuinely opportunistic.

9. Many Bullets

Nadler and Tushman observe that most successful Re-Orientations are characterized by a multi-pronged strategy, or the use of "many bullets," to reinforce the change program objectives. Change objectives should be reinforced consciously, frequently and repeatedly across a broad spectrum of organizational activities. It is especially important to use many bullets as some may prove ineffective in achieving the desired change results, even though they may have seemed perfectly appropriate at the time of implementation.

Government-wide, there are good examples of a many-bullets strategy at work. Relative to other governments, Alberta has been pro-active at regularly distributing change-related information to both government staff as well as the public at large. Examples include comprehensive, consolidated financial reporting, business plans and performance measures for all government departments in a user-friendly format. The government

initiated very open, public quarterly financial reporting which is largely unique to government operations. As change activities progressed, several newsletters from the Premier to all government staff were distributed detailing down-sizing policies and change-progress reports. At virtually every speaking opportunity for the Premier, Energy Minister and other Cabinet Ministers, government-wide change activities were highlighted. The Minister of Energy included details of the Ministry's change activities in virtually every speech for 6-12 months after change was announced. Overall, the government was very effective at consciously reinforcing change objectives through frequent many-bullets strategies. Media even referred to the government's communications strategy for its change activities as war-like "carpet-bombing", due to the frequency and volume of information typically provided on change activities.

Within the Alberta Ministry of Energy itself, there does not appear to have been as conscious a strategy for reinforcing change objectives through a coordinated "many bullets" strategy as the broader government program, though there are several isolated, uncoordinated bullets identifiable. Good examples include the frequent speeches by the Minister and Deputy Minister and the periodic use of external management consultants to assist the change process. Management consultants were used to conduct the initial organizational review. They were also brought in for assistance in promoting individual change project objectives like AOSE integration into the Department, organizational workshops for Oil Sands and Energy Research Division, facilitation services for certain Executive Committee meetings, and organizational design consulting for External Relations and Communications. Ministry staff came to associate the presence of the consultants with strategic change activities and their ongoing assistance typically focussed the Ministry positively towards change objectives, although they were often greeted with anxiety by organizational staff who viewed their presence as leading to further down-sizing. Further examples include certain business processes under development (e.g. Management of Business Items) which also began to incorporate and promote change objectives in their design. In addition, the Ministry published periodic

internal staff newsletters to try and keep staff informed. Frequent meetings of senior staff, including the Minister and Deputy, reinforced change activities and provided continuing momentum for change. The Deputy Minister embarked upon periodic "walk-abouts," interacting with Ministry staff at all levels and promoting a more open, candid style of management that promoted their participation in discussion of organizational issues. As mentioned earlier, increased organizational planning sessions for broader cross-sections of Ministry staff later in the initial implementation year helped make staff more aware and committed to change.

While several examples of reinforcing bullets are clearly present, the organization could clearly have been more proactive in consciously reinforcing change objectives throughout the organization. Internal communication was perhaps improved relative to prior eras, though staff were still relatively uninformed about change activities creating undue uncertainty and anxiety. Notably absent in the initial implementation year was utilization of important human resource management tools like re-engineering processes for performance reviews, compensation systems and promotions to reinforce desired change objectives. These bullets could have been used more effectively to communicate desired behaviours with tangible and immediate impact on broad groups of organizational staff.

In addition to new bullets, there was the lingering presence of old bullets continuing to reinforce previous organizational themes, structures and norms. For example, as late as January 1995 (nearly one year after change program implementation), there were still temporary signs in place directing visitors on the Department's executive floor to a previous organizational structure (i.e. Mineral Revenues Division). In addition, staff, including the most senior levels, still frequently used terminology associated with the previous organizational structures and systems.

While individual reinforcing bullets may not have large impact by themselves, when combined and repeated, they do provide support for change objectives and can be a

powerful tool to positively modify staff behaviours. Government-wide, a conscious and largely effective many-bullets strategy was clearly present, though the use of reinforcing bullets within the Energy Ministry itself during the initial implementation year was not as consciously planned as Nadler and Tushman would suggest is preferred.

10. Investment and Returns

Nadler and Tushman observe that effective Re-Orientations require a considerable investment in the executive team. Strategic organizational change is knowingly messy and can be expected to be difficult. During the first implementation year, despite the perceived pre-occupation of the organization with re-structuring, the change program in the Ministry perhaps suffered from a relatively small organization-wide investment of both time and resources. This was especially true in the early months after implementation began.

Having implementation responsibility rest with the senior executives, given their ongoing responsibilities, ensured that insufficient time would be dedicated to enact the full scope of the change program pro-actively. Many aspects of change leadership rested with the Deputy Minister, who had little time available to pro-actively initiate and manage a successful change program, as well as nurture his executive team and instill leadership qualities throughout the organization. Nadler and Tushman note that the scarcest resource in the organization is the time of the senior management team and the experience in the Alberta Energy Ministry strongly supports this observation.

At times, the organization did expend resources in support of change activities, like utilizing external consultants to assist with the transition. However, resources were not extensive and were simply re-directed from other budget areas. The management of strategic organizational change is an important central activity of the organization and specific resources should be made available to assist the transition as necessary. This

includes the recognition of time needed by staff throughout the organization to help smooth the transition. Recognizing both the financial and time commitment necessary for effective change is an important pre-requisite to success. Change will not come about by simply stating revised organizational objectives. The Ministry of Energy has suffered in initial change implementation by a relatively minor and uncoordinated investment in change management, and will have to alter its course unless it is also prepared to live with only minor returns.

Table 8 outlines a summary of the Alberta Ministry of Energy's experience at managing strategic organizational change, highlighting from the previous discussion the key areas of support and resistance for change.

TABLE 8 - Summary of Management of Strategic Organizational Change

PRINCIPLES OF EFFECTIVE FRAME BENDING	ORGANIZATIONAL RESPONSE	
	SUPPORT	RESISTANCE
1. Diagnosis	- prior planning - future scan - three-year business planning - independent consultants	- prior planning bias - one-time only (scan) - narrow participation - weak awareness/commitment
2. Vision	- three-year business planning - rigid, comprehensive format - Minister, Deputy Minister	- narrow participation - weak awareness/commitment - pre-dated senior staff changes
3. Energy	Initiation - election mandate - stakeholders (public, industry) - political (Premier, Cabinet) - Minister, Deputy Minister Sustaining (political momentum)	Sustaining - slow to recognize urgency broadly - narrow internal participation - inconsistent planning participation
4. Centrality	- three-year business plan - energy industry recovery increased the relative impact of change	- limited awareness/commitment - limited internal reinforcement
5. Three Themes	- three-year business plan - elected officials	- weak awareness/commitment - overemphasis on re-structuring - weak linkage/synergy of themes
6. Magic Leader (Deputy Minister)	- new leadership - envisioning - energizing - able to create urgency - guardian of themes - mix of styles	- inconsistently enabling - sometimes unclear delegation - implementation responsibility - perceived external focus - geographic or agency-based resentment to change

TABLE 8 - Summary of Management of Strategic Organizational Change (Continued)

PRINCIPLES OF EFFECTIVE FRAME BENDING	ORGANIZATIONAL RESPONSE	
	SUPPORT	RESISTANCE
7. Beyond the Magic Leader	- several changes to key positions (Premier, Minister, Deputy Minister, Chairman AEUB, Assistant Deputy Ministers)	- delays in key appointments - commitment to plan by exec team - SRD slow to emerge - slow to re-engineer mgmt processes (decision-making, Exec. Committee, business items, info, human resources) - responsibility default to Deputy - limited time of senior officials
8. Planning and Opportunism	- increased responsiveness - increased flexibility - more open management and communications - political/government-wide initiatives (budgeting, business plans, communications)	- ad hoc project-based planning - scarce time of senior officials - SRD slow to emerge - misunderstanding of scope of change as re-structuring only - weak commitment to bus. plan - inadequate feedback of progress
9. Many-Bullets	- political/government momentum - Minister (speeches, meetings) - Deputy (meetings, walk-abouts) - improved communication relative to past - external support (e.g. consultants) - internal planning sessions	- no conscious internal strategy - inadequate internal communication - retention of "old" bullets - slow to revise reinforcing processes (e.g. Human resources)
10. Investment and Returns	- periodic use of external consultants - focus of executive team	- little investment beyond senior team - limited time of senior team

IV. CONCLUSIONS

It is evident from the analysis that the Alberta Ministry of Energy, by December 31, 1994, had not yet attained desired strategic organizational change objectives, and in fact was struggling somewhat to implement an effective change management program and re-gain congruence among organizational model attributes.

In this section, a brief summary of the broad conclusions flowing out of the analytical review will be developed, in addition to more specific detailed critical areas of resistance to achieving desired change objectives. Recommendations are developed to address these resistance areas and assist smoothing and accelerating the transition to the Desired organization. In addition, some final thoughts are presented.

Limited attention was paid in the analysis to the key issues of change as they pertain to the Alberta Energy and Utilities Board (AEUB). While the AEUB is a critical component of the Ministry, delays in both establishing a permanent Chairman and proceeding with the ERCB/PUB merger forced many change implementation activities effectively out of the reference period examined. The AEUB faces many organizational change issues similar to those encountered by the ADOE, though with the benefit of some practical hindsight gained from observing the ADOE experience. While certain AEUB change activities have proceeded in the absence of a Chairman and merged Board, it is assumed that the organization overall was still at relatively early stages of the change management process and was largely assumed "out" of the analysis.

A. Summary of Strategic Organizational Change in the Alberta Ministry of Energy

The Analytical Section, through application of the Nadler and Tushman Organizational Framework, identified in some detail the reference points for analyzing change - namely

the "Previous" and "Desired" organizations. The **Previous organization** was identified as fundamentally 6 unique organizations (i.e. ADOE, AOSE, AOSTRA, APMC, ERCB, PUB), each with their own attributes of strategy, structure, process, work and people which were summarized in Table 6. The **Desired organization** was identified as that described in the Ministry's own three-year business plan, consisting of two structural entities (i.e. ADOE, AEUB), and emphasizing different organizational attributes recognizing a significant reduction in available financial and manpower resources. Characteristics of the Desired organization were also summarized in Table 6.

The analysis **reviewed change between the two reference points,** and Nadler and Tushman's organizational model attributes of Resources, Strategy, Formal Structure and Process, and Informal Structure and Process were identified as the major change variables between the Previous and Desired organizations, with somewhat more modest change expected in organizational model attributes of Environment, Work and People. Overall, it is mainly the "how" of the Ministry's business that is fundamentally changing as opposed to the "what."

In addition, the **change program was analyzed in a broader and more dynamic sense,** identifying the impact on model attributes over 24 months from both external shocks and internal change programs. The system began in relative congruence, consistent with the previous organizational context. Equilibrium was disrupted initially by an external shock to the system from uncertainty over resource availability, and the organization attempted through strategic change initiatives, and in response to continued external shocks, to adjust various elements appropriately to attain a new level of congruence. By December 1994, there remained strong evidence that congruence was not yet attained, and that organizational effectiveness and the management of change itself was sub-optimal.

As a result of both the underlying change drivers and the expected magnitude of change identified through the use of the organizational model, it was possible to easily identify

the **type of organizational change** under way in the Alberta Ministry of Energy as that of a Nadler and Tushman Re-Orientation. In addition, it was also relatively easy to identify high levels of change intensity and organizational complexity reinforcing the need for carefully and systematically planned **strategic organizational change management.** The balance of the analysis, and core objective of this thesis, reviewed the organization's efforts at **managing strategic organizational change**, through phases identified by Nadler and Tushman as Initiating Change, Content of Change, Leading Change and Achieving Change, comprised of their ten principles for effective frame-bending.

With respect to **Initiating Change,** the organization was largely successful. Fairly extensive "diagnostic" work was undertaken to assess economic, technical and political attributes of the external operating environment and assist matching organizational design to its operating environment. A comprehensive "vision" of the desired future state was developed in conjunction with a comprehensive three-year business plan offering a concise, well-conceived blueprint of desired strategic change activities, albeit one that may not have had widespread commitment. Sufficient "energy" was also created to successfully initiate change, largely driven by the overwhelming consensus of stakeholders as to the need for urgent change. Despite continuing external sustaining energy generated by the requirements of the government-wide change program, it was less clear that substantial internal energy was effectively sustained to provide ongoing momentum for change within the Ministry, perhaps a result of a lack of coordination of the energy that was present.

The Ministry of Energy was also moderately successful at developing appropriate **Content of Change.** The Ministry's desired change program, as espoused by the three-year business plan, was clearly linked to the central strategic issue for the organization, which was to improve efficiency and productivity to enable it to continue effectively conducting its future activities amid reduced financial and human resources ("centrality").

Again, the focus of planning was to be largely on process improvement, or changes in "how" the Ministry would conduct future business more so than changes in "what" future business or work might be. The organization also successfully limited the number of major change themes ("three themes"), though perhaps lost sight of the broader stated desired themes (i.e. maximizing value of natural resources for Albertans, improving efficiency and productivity) and became overly focussed on certain sub-themes (e.g. re-structuring). The desired strategic organizational change program was identified fundamentally as the eight strategies outlined in the organization's initial three-year business plan and summarized in Table 7.

With respect to **Leading Change** , the Ministry had mixed results. Changes in leadership at several levels were fundamental to enabling large-scale change to proceed. As implementation commenced, the new Deputy Minister became the organization's champion of change and fundamentally possessed and demonstrated most characteristics of Nadler and Tushman's "magic leader", though was not consistently enabling. The organization did not achieve early success at broadening the base of leadership "beyond the magic leader" , through delays in establishing the executive team and a responsive and re-engineered Strategic Resources Division, as well as the absence of adequate reinforcement of desired behaviour throughout the organization via supporting structures and processes (e.g. instrumental leadership). A clear roadblock to effective leadership was the weak awareness and commitment throughout the organization to the vision in the three-year business plan, even at senior levels.

Finally, it is apparent that the Alberta Ministry of Energy struggled in certain areas of **Achieving Change** over the reference period. Implementation "planning" activities were not comprehensively or consistently managed in the context of the broad change program, instead being managed mostly on an ad hoc, project basis. The organization did demonstrate an ability to be flexible, responsive and "opportunistic." The organization itself did not utilize a conscious strategy for frequent and repetitive change

reinforcement ("many bullets"), despite the government's own effective use of such a strategy. Also, despite considerable energy and emotion around the change program at senior levels in the organization, there was actually a relatively minor overall investment in change to December 1994, which contributed to the early struggles at managing change and improving organizational effectiveness in the shorter term ("investment and returns").

Table 8 summarized the organizational issues providing both support and resistance to the change process. The following general key issues have been distilled from the broader list in Table 8 as the dominating factors influencing the change process. These issues cross over the boundaries of several of Nadler and Tushman's change process principles, exerting large influence on the pace and effectiveness of change:

- strategy formulation (clarity, awareness, participation, understanding, commitment, continuity),
- strategy implementation (planning, comprehensiveness, synergy, process re-engineering, process management, performance evaluation).
- environment (political pressures, buoyant industry, determination of public, government and other stakeholders to facilitate change),
- culture (government, independent ABC's, organizational uncertainty, anxiety, weak morale),
- leadership, authority, power (changes in key personnel, skill, trust, confidence, loyalty, commitment, respect, responsibility, accountability, empowerment, rivalry).

B. Major Impediments to Change in the Alberta Ministry of Energy

Building on the general conclusions of change echoed above, the following specific observations represent the major impediments to change encountered to December 1994 in the Alberta Ministry of Energy. They represent a further distillation of the key issues identified in Table 8 and above, to isolate the specific critical change inhibitors and allow for development of specific corrective actions to smooth and accelerate the transition.

1. Narrow Recognition of the Three-Year Business Plan as the Central Tool of Organizational Planning

- The largest problem impeding effective strategic organizational change in the Ministry has likely been attributable to weak awareness of and commitment towards the overall desired organizational strategy (e.g. mission, mandate, vision, goals, strategies for change, actions, performance measures, etc.) espoused in the three-year business plan.

- General misconception of scope and focus of change by many in the organization to be the organizational re-structuring, instead of the broader overall change program outlined in the three-year business plan.

- Inadequate linkages between organizational performance and three-year business plan objectives.

2. Insufficient Planning for Change Implementation

- Unclear implementation strategies have played a major role in inhibiting change. In particular, a well-defined implementation strategy for managing the overall change program was never developed. Instead, individual change projects were

typically initiated, managed and monitored in relative isolation from each other, preventing probable synergy among programs and commitment-building that may have developed otherwise. In some instances, certain high-priority change programs were not aggressively pursued (e.g. development of an oil sands strategy) while others received disproportionate attention (e.g. organizational re-structuring).

- Overall responsibility for managing strategic change activities was left with the executive team, which was problematic given that their time was undoubtedly the scarcest resource in the organization. Clear lines of responsibility for individual change programs were not always well established, with ultimate default to the Deputy Minister who did not have enough time available to manage them effectively.

- Inadequate feedback regarding the progress and outcomes of certain change activities once implemented resulted in periodic delays or programs straying from original objectives without immediate recognition and corrective action by the organization.

3. Insufficient Communication of Change Objectives, Activities and Progress

- Considerable uncertainty and anxiety concerning change exists in the organization, especially as it pertains to downsizing and changing work roles. This, combined with longstanding pay and hiring freezes, and recent salary reductions, has led to weak morale. Pockets of staff appear to be periodically searching for direction from senior levels, a reflection of inadequate two-way communication and information flow.

4. ***Insufficient Resources Dedicated to the Change Program***

- Relatively few organizational resources were dedicated to the management of strategic organizational change in the initial implementation year, beyond the limited time available of the executive team and contract funds for management consultants re-directed from other budget areas. This problem was particularly acute early on in the process.

5. ***Delays in Establishing Certain Critical Change Elements***

- Certain critical personnel appointments were delayed after change implementation was announced. This has been particularly disruptive to realizing change objectives. For example, almost 6 months elapsed from announcing the creation of new divisions to the appointments of Assistant Deputy Ministers for them.

- Implementation of certain critical structural elements were delayed. For example, a working Energy Research Council was not established until roughly 12 months after it was first announced. The Deputy Minister's Industry Advisory Council was never really contemplated. Equally important was the perceived retention of certain former structures that continued to reinforce previous organizational objectives as opposed to desired ones. For example, APMC regulatory activities continued for several months after the re-structuring announcement relatively independently of the ADOE under the direction of the former APMC Chairman.

6. ***Internal Management Processes Continue to Reinforce Previous Organizational Objectives***

- Key internal management processes (e.g. business issues management, decision-making, Executive Committee, information and correspondence flow, human

resources, etc.) were developed under the previous organizational context and reinforce previous instead of desired structures, processes and overall objectives.

C. Recommendations

The previous section identified the key specific impediments to desired change in the Alberta Ministry of Energy. Outlined below are specific recommendations to overcome these impediments and smooth and accelerate the transition to the Desired organization. Like the organizational model itself, these recommendations are also inter-related. For example, although developed in response to the individual impediments to change identified, they will actually reinforce each other in dealing with particular issues.

1. Re-Visit the Three Year Business Plan.

- Establish a permanent internal management process to ensure continual and ongoing review of the three-year business plan, including the Future Scan.

- Encourage regular, broad input and participation of all staff in the ongoing review and revision of the three-year business plan. Ensure periodic circulation of draft business plans to relevant stakeholders for input.

- Develop management processes to link business issue outcomes and broader organizational performance to objectives identified in the three-year business plan.

2. Establish a Full-Time Transition Team to Manage Change Implementation.

- A transition team, similar to that described by Duck (1993), reporting to Executive Committee, should be delegated practical responsibility, authority ,

power, and resources to manage the implementation of the strategic organizational change program described in the three-year business plan, not just re-structuring activities. Duck (1993) notes that:

> *they (i.e. the transition team) are the CEO's version of the national guard. The CEO should be able to say 'I can sleep well tonight, the transition team is managing this.'* [21]

- The transition team should be selected to include one or two credible, non-executive representatives from all ADOE divisions. A team leader should be selected who possesses unquestioned credibility and respect throughout the organization. An initial challenge of the transition team will be to take an inventory of ongoing change programs relative to those outlined in the three-year business plan and develop a clear, coordinated and comprehensive implementation strategy to ensure that change objectives are realized in appropriate time-frames. The strategy should include systematic mechanisms for ongoing monitoring of progress and results.

- A weekly update from the transition team should become a recurring agenda item for the Department's Executive Committee.

3. Develop a Comprehensive Internal Change Communications Program.

- Implement regular, frequent and user-friendly communications to all staff updating them on change activities.

- Encourage improved two-way communication (e.g. feedback) with staff about change activities including a mechanism to promote and address staff questions in a timely manner.

- Bombard the organization broadly with frequent and repetitive change-reinforcing levers (actions, messages, symbols , etc.) in a conscious "Many Bullets" strategy.

4. ***Allocate Increased Organizational Resources to the Management of Strategic Organizational Change***

- Identify the management of strategic organizational change as an individual project of the Ministry, akin to other major projects, including its own budget allocation.

- Require the transition team to develop a detailed budget for managing strategic organizational change including human resource needs.

- Consider the continuing use of available external support mechanisms (e.g. external management consultants) on a selective basis to advise the Ministry on change activities. The use of external consultants was useful in the past to obtain independent, unbiased organizational design and change management advice, knowledge that is not widely available internally. As change is increasingly institutionalized, the role of external supporting mechanisms can decrease.

5. ***Move Quickly and Decisively to Anchor Uncertainty around Critical Structures and Personnel (e.g. Hiring and Down-sizing)***

- Acknowledge finalizing key structures and personnel as a priority change activity to both the Human Resources branch and transition team.

- Review hiring practices to understand reasons for delays in key appointments (e.g. AEUB Chair, Deputy Minister, Assistant Deputy Ministers, Executive Directors, etc.) and identify areas for accelerating future appointment processes.

- Ensure there are clear, consistent, highly visible policies for down-sizing to smooth and accelerate implementation and reduce staff uncertainty and anxiety. In down-sizing activities, move quickly and decisively to ensure that organizational time and energy is spent with continuing staff as opposed to departing staff. Ensure that departing staff are treated fairly, which will enhance the commitment and trust of continuing staff.

6. ***Review and Re-Engineer Key Internal Management Processes to Ensure that Desired Organizational Objectives are Reinforced.***

- Review decision-making processes to ensure reinforcement of three-year business plan objectives (e.g. horizontal linkages, consultation, etc.). The Executive Committee should be clearly recognized throughout the organization as the forum for key decisions. Consider roles for more systematic reports, briefings, implementation procedures, communications, input and routing.

- Review Executive Committee processes including frequency, agenda format (e.g. recurring items, items for information, items for discussion, items for decision), agenda setting, communication, implementation, etc.

- Review processes for management of business issues (e.g. identification, prioritization, management, consultation, decision-making, communication, implementation, performance feedback to business plan, etc.).

- Review management of information and correspondence (e.g. freedom of information, electronic mail, information flow, storage and retrieval, external correspondence, systems compatibility, etc.).

- Review management of human resources (e.g. downsizing, severance, compensation, performance evaluation, benefits, hiring, firing, inventory of skills and core competencies, career development, employee counselling, union, non-union). A critical future challenge for the organization will be retaining talented staff amid overall government compensation restraint. This will be a particularly tough task as long as the industry remains relatively vibrant with frequent employment opportunities. The Ministry must pro-actively develop more creative human resource policies as traditional government practices have not been sufficient to retain and motivate certain critical staff.

TABLE 9 - Summary of Major Impediments to Change and Recommendations

MAJOR IMPEDIMENTS TO CHANGE	RECOMMENDATIONS
Narrow Recognition of Three Year Plan - weak commitment and awareness of plan - misconception of scope/focus of change as re-structuring only - weak linkage of results to plan objectives	**Revisit the Three Year Business Plan** - establish permanent mgmt process for review - encourage frequent input from staff/stakeholders - develop processes linking organizational outcomes to plan objectives
Insufficient Implementation Planning - unclear implementation strategy - unclear/inappropriate implementation responsibility - inadequate implementation progress feedback	**Establish a Transition Team** - delegate practical responsibility, authority, power and resources to manage change implementation - cross divisional non-executive representation - report regularly to Executive Committee
Insufficient Communications around Change - high level of organizational uncertainty and anxiety	**Develop Broad Communications Strategy** - establish mechanism for frequent updates to staff - improve 2-way communication (feedback, Q&A) - develop a "many bullets" reinforcement strategy
Insufficient Resources Dedicated to Change - relatively minor commitment of financial and human resources	**Increase Resources Available for Change** - identify Change Mgmt as specific Ministry project - develop budget and allocate specific resources - utilize selective external support (e.g. consultants)
Delays in Establishing Critical Change Components - critical personnel - critical structures	**Move Quickly and Decisively to Anchor Key Structures and Personnel** - acknowledge as priority change tasks - review past delays, streamline processes - ensure down-sizing policies are well developed
Inappropriate Internal Management Processes - internal processes designed to reinforce previous objectives	**Re-Engineer Internal Management Processes** - decision-making - Executive Committee - business issues management - information and correspondence management - human resources management

D. Final Thoughts

Overall, the early experience of the Alberta Ministry of Energy at implementing strategic organizational change was likely very typical of the experience of many other North American organizations that have undergone similar large scale change in recent years. While the organization experienced some frustration over not achieving its organizational objectives quickly and smoothly, the fundamental change drivers and long term objectives remain valid.

Large scale strategic organizational change is knowingly messy, and typically takes from 3 to 7 years to realize objectives. Several external shocks, false starts and adjustments to plans are normal and expected. Given expected time frames for achieving change, the Alberta Ministry of Energy at December 1994 was at best only half way through the change process when compared to the experience of other firms undergoing large scale change. This is an important observation, especially given the shorter time frames that the elected officials ultimately responsible for re-engineering government would prefer. Also important to recognize is that the Alberta Government is widely recognized as one of the pioneers in large scale re-engineering of government in North America and as such, has few examples from other jurisdictions to draw experience from.

The Ministry itself has not necessarily under-performed in enacting change relative to the experience of others. In certain areas, it has performed very well. However, it has encountered common change pitfalls that were both unavoidable and avoidable. This has increased frustration and pain in the organization and contributed to declining short-term effectiveness presumably for the sake of longer-term gain. Frustration and pain are part of the commitment-building process and are a necessary, not abnormal, part of the change process. However, change management can be made considerably easier with a well-conceived, comprehensive plan for managing the transition.

History suggests that successful Re-Orientations require patience, internal fortitude and acceptance that change is likely to be messy and difficult. An important milestone in the change process is recognition of problem areas and a willingness to enact corrective measures and undergo iterative and opportunistic planning. It appears that by December 1994, the Alberta Ministry of Energy had reached this milestone, and should be positioned to pro-actively enact corrective measures.

Through the first half of 1995, the Ministry did recognize some of the problem areas identified in this thesis and began developing improvement strategies. Certain transition teams were struck to address specific organizational issues. More staff around the organization became actively engaged in change planning and activities, enhancing both awareness and commitment to change objectives. Considerable momentum was achieved at re-engineering certain critical management processes.

Certain important subsequent unplanned events also occurred, which will require opportunistic responses. An important event was the departure of the new Deputy Minister (magic leader) to industry in April 1995. By June 1995, the organization had yet to establish a new champion or focal point of change and this will be a critical task to sustain momentum. Another important event was the departure of the Assistant Deputy Minister of Strategic Resources to industry in June 1995. This division contains the fundamental levers for managing change and it may be highly desirable to position the successor as the new change-agent in the organization, much as the original re-structuring plan had envisioned.

Perhaps the most important element for assuring the ultimate success of the organization in achieving its change objectives will be successful development of the next iteration of the three-year business plan over the summer/fall of 1995. To December 1994, the organization has struggled to develop a central vision that was recognized widely and had the undivided commitment of all staff. An opportunity exists in the course of this next

iteration of the three-year business plan to correct this flaw that has negatively impacted virtually all aspects of change to date.

These, and other adjustments as recommended in this thesis cannot guarantee the successful attainment of the organizational change objectives of the Alberta Ministry of Energy, though they should assist in smoothing out and accelerating the transition to the Desired organization.

V. FOOTNOTES

1. Andrew Pettigrew, The Management of Strategic Change, ed. Andrew Pettigrew (Oxford: Basil Blackwell, 1988), p. 2.

2. Pettigrew, p. 5.

3. Pettigrew, p. 5.

4. D.A. Nadler, and M.L. Tushman, "Organizational Frame Bending: Principles for Managing Reorientation," in Academy of Management Executive, Vol. III, No. 3, 1989, p. 194.

5. Nadler and Tushman, "Organizational Frame Bending," p. 194.

6. Nadler and Tushman, "Organizational Frame Bending," p. 196.

7. Nadler and Tushman, "Organizational Frame Bending," p. 196.

8. Nadler and Tushman, "Organizational Frame Bending," p. 196.

9. Nadler and Tushman, "Organizational Frame Bending," p. 196.

10. Nadler and Tushman, "Organizational Frame Bending," p. 197.

11. D.A. Nadler, and M.L. Tushman, "Beyond the Charismatic Leader: Leadership and Organizational Change," in California Management Review, 32, Winter 1990, p. 85.

12. Nadler and Tushman, "Beyond the Charismatic Leader," p. 85.

13. Alberta Energy, Annual Report, 1992-1993, p. 4.

14. Alberta Oil Sands Technology and Research Authority, Annual Report, 1993, p. 1.

15. Energy Resources Conservation Board, Energy Alberta, 1993, back cover plate.

16. Government of Alberta, "Energy Business Plan 1994-95 to 1996-97," in A Better Way: A Plan for Securing Alberta's Future, February 24, 1994, p. 3.

17. Government of Alberta, p. 6.

18. Government of Alberta, pp. 4-5.

19. Government of Alberta, p. 3.

20. Government of Alberta, pp. 4-5.

21. J.D. Duck, "Managing Change: The Art of Balancing," in Harvard Business Review, November-December 1993, p. 116.

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VII. APPENDIX 1 - Government of Alberta News Release

Alberta NEWS RELEASE

GOVERNMENT OF ALBERTA

FOR RELEASE: 11:00 a.m.
February 11, 1994

DETAILS OF MINISTRY OF ENERGY RESTRUCTURING ANNOUNCED

CALGARY . . . The biggest restructuring ever undertaken in the Ministry of Energy will reduce the Ministry's five reporting agencies to one, and emphasize "one-window" access and a more streamlined and efficient regulatory process for industry, Energy Minister Patricia Black said at a news conference in Calgary today.

In releasing details of the Ministry of Energy's restructuring announced in yesterday's Speech from the Throne, Mrs. Black described the organizational changes as a critical element in the Ministry's Three-Year Business Plan, which was developed in close consultation with industry, other stakeholders and senior staff in the Ministry.

"We are creating a smaller, more efficient and tightly integrated organization that will be business-like in carrying out its mandate to work with industry and protect Albertans' interests as the resource owners," said Mrs. Black.

The key features of the restructuring include:

- Amalgamating the Energy Resources Conservation Board (ERCB) and Public Utilities Board (PUB) into a single quasi-judicial regulatory agency called the Alberta Energy and Utilities Board. The current distribution of staff between Edmonton and Calgary is not expected to change significantly.

- Transferring the regulatory and policy responsibilities of the Alberta Petroleum Marketing Commission (APMC) to a new Policy Division within the Department of Energy. The new Policy Division will include the activities previously performed by Markets Supply and Industry Analysis Division in the Department and the policy functions carried out elsewhere in the Ministry. Over the next year the APMC will report to the Deputy Minister of Energy and continue marketing Alberta's Crown royalty share. During this time, the government will move to allow the private sector to market the Crown's crude oil. Consultations will be held with industry to determine the mechanisms needed to ensure collection of Crown oil royalties.

- Discontinuing separate agency status for the Alberta Oil Sands Technology and Research Authority (AOSTRA).

- Discontinuing separate agency status for Alberta Oil Sands Equity (AOSE).

- Creating a new division within the Department of Energy called Oil Sands and Research. For the first time ever, the province's involvement in energy research and its equity investments in oil sands and heavy oil will be brought together and co-ordinated. AOSTRA and AOSE activities will form part of this Division.

- Appointing a volunteer panel of industry experts to be collectively known as the Energy Research Council. The Council will advise the Department on priorities and strategies for government funding of energy research.

- Creating a new division within the Department of Energy called Operations and Support. This division will bring together the bulk of the work now performed across three divisions in the Department of Energy. The Operations and Support Division will be responsible for all activities related to mineral leases, financial and legal services and royalty collection.

- Creating a new division within the Department of Energy called Strategic Resources. This division will be responsible for automated information systems, human resources and office support services. The key objective of this new division is to eliminate duplication in Ministry databases and industry reporting.

- Creating a new section called Communications and External Relations within the Department of Energy . This section will be responsible for co-ordination with other government departments, public information, Calgary Information Centre, education and promotion activities, energy trade missions and visitors' program.

Implementation of the new organizational structure will begin immediately under the guidance of a steering committee of senior Ministry staff. "Our goal is to carry out the restructuring in an orderly manner to avoid disruption to industry. Our staff will continue to be consulted throughout the restructuring process," said Mrs. Black.

The new structure is based on recommendations from a review carried out by Coopers & Lybrand. More than 200 individuals from the Ministry and a broad cross-section of the oil and gas industry, the utilities sector and business community were consulted during the review.

Mrs. Black noted that one of the priorities is the merger of the ERCB and PUB including the recruitment of a Chair for the new Alberta Energy and Utilities Board through open competition. Another priority is to get the new Oil Sands and Research Division operational as quickly as possible.

The restructuring represents only one component of a longer-term strategy to redefine the Ministry of Energy's operational interface with industry and meet the budget reduction targets for the Ministry. Other activities now under way to achieve these two goals include: a comprehensive review of all energy-related regulations to streamline the regulatory process and provide "one-window" access for industry; pursuing an integrated and co-ordinated approach to energy research; outlining a vision and action plan for developing the oil sands; and re-engineering the Ministry's business and administrative processes.

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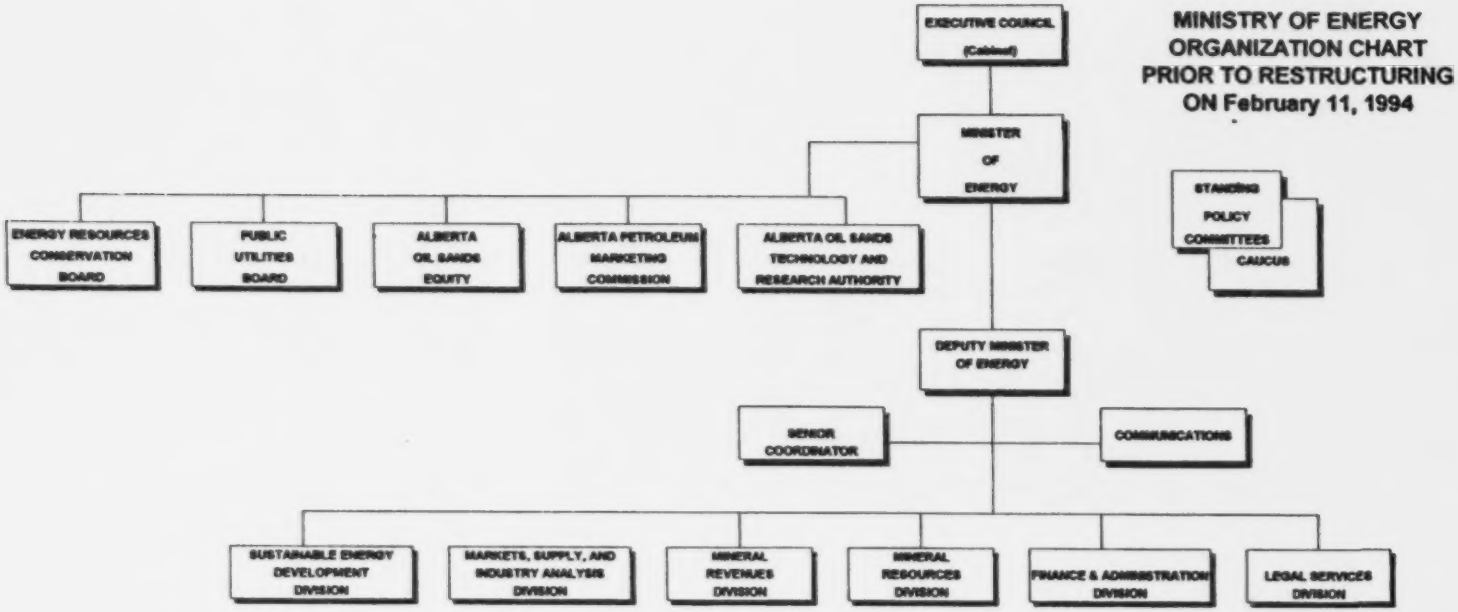
NOTE TO EDITORS: A Backgrounder on the Ministry of Energy is available from Energy's Communications Branch.

VIII. APPENDIX 2 - Organizational Charts (Previous and Desired Organizations)


MINISTRY OF ENERGY
ORGANIZATION CHART
PRIOR TO RESTRUCTURING
ON February 11, 1994
EXECUTIVE COUNCIL
(Cabinet)
MINISTER
OF
ENERGY
STANDING
POLICY
COMMITTEES
CAUCUS
ENERGY RESOURCES
CONSERVATION
BOARD
PUBLIC
UTILITIES
BOARD
ALBERTA
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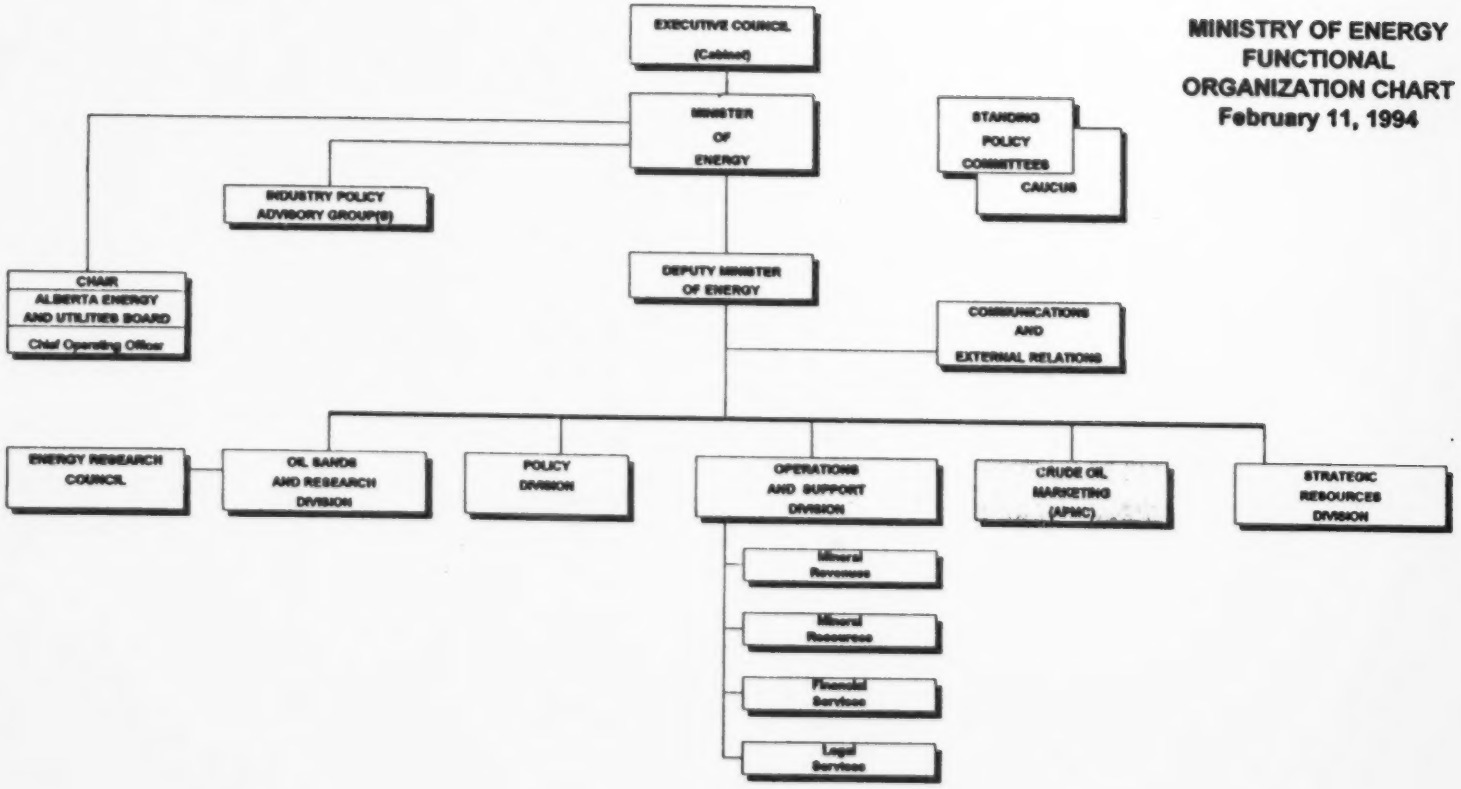
EQUITY
ALBERTA PETROLEUM
MARKETING
COMMISSION
ALBERTA OIL SANDS
TECHNOLOGY AND
RESEARCH AUTHORITY
DEPUTY MINISTER
OF ENERGY
SENIOR
COORDINATOR
COMMUNICATIONS
SUSTAINABLE ENERGY
DEVELOPMENT
DIVISION
MARKETS, SUPPLY, AND
INDUSTRY ANALYSIS
DIVISION
MINERAL
REVENUES
DIVISION
MINERAL
RESOURCES
DIVISION
FINANCE & ADMINISTRATION
DIVISION
LEGAL SERVICES
DIVISION


MINISTRY OF ENERGY
FUNCTIONAL
ORGANIZATION CHART
February 11, 1994
EXECUTIVE COUNCIL
(Cabinet)
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OF
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COMMITTEES
CAUCUS
INDUSTRY POLICY
ADVISORY GROUP(S)
CHAIR
ALBERTA ENERGY
AND UTILITIES BOARD
Chief Operating Officer
DEPUTY MINISTER
OF ENERGY
COMMUNICATIONS
AND
EXTERNAL RELATIONS
ENERGY RESEARCH
COUNCIL
OIL SANDS
AND RESEARCH
DIVISION
POLICY
DIVISION
OPERATIONS
AND SUPPORT
DIVISION
CRUDE OIL
MARKETING
(APMC)
STRATEGIC
RESOURCES
DIVISION
Mineral
Revenues
Mineral
Resources
Financial
Services
Legal
Services

IX. APPENDIX 3 - Three-Year Business Plan

Energy

Business Plan 1994-95 to 1996-97

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Expected Results and Performance Measures 8

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Mission Statement

- To ensure energy and mineral resource development and use occur in an effective, orderly and environmentally responsible manner.

Mandate

The mandate of the Ministry of Energy can be outlined in terms of the following key responsibilities. These key responsibilities are to:

- Develop policy.
- Delineate and dispose of mineral resources.
- Collect the Crown's share of revenue from the exploration, development and sale of mineral resources.
- Regulate production practices and related sectors (including pipelines and utilities).
- Support research to enhance resource development and reduce environmental impacts.
- Manage Alberta's equity participation in oil sands and heavy oil projects.
- Monitor and assess Alberta's resource base and markets in support of the province's role in managing resource development; and encourage conservation, safe development and environmental protection.
- Ensure the fair, efficient and open assessment of resource development projects.
- Collect and disseminate data important to the ongoing management of Alberta's resource base.

Three-Year Spending Targets

1992-1997 (millions of dollars)						
Spending	1992/93 Actual	1993/94 Comparable Forecast	1993/94 Comparable Budget	1994/95 Estimate	1995/96 Target	1996/97 Target
General Revenue Fund						
Department	68.7	68.1	69.3	64.9	63.9	56.2
Alberta Petroleum Marketing Commission	3.5	3.4	3.5	3.3	—	—
Alberta Energy and Utilities Board	21.9	20.9	20.9	19.9	18.5	16.8
Heritage Fund						
Renewable Energy Research	0.7	0.7	0.8	—	—	—
Total	**94.8**	**93.1**	**94.5**	**88.1**	**82.4**	**73.0**

Goals, Strategies and Actions

Two goals have been identified for the Ministry of Energy.

Goal #1: Maximize the value of Alberta's energy and mineral industries to provide greater benefits to Albertans.

Strategies:

Three strategies have been identified for achieving this goal:

1. Establish criteria for future program development and evaluation for the purposes of ensuring Albertans receive a fair return for their resources; providing a stable, competitive royalty structure; ensuring that an attractive investment climate exists; clarifying and streamlining the regulatory framework, and reducing administrative burdens on industry.

2. Develop a vision and action plan to develop Alberta's oil sands.

3. Develop a coordinated energy research strategy.

Actions:

- Maintain attractive investment environment.
- Encourage market efficiency.
- Develop energy and mineral resources in an environmentally responsible manner.
- Maximize for Albertans the value and benefits from the Province's non-renewable resources and investment in oil sands/heavy oil projects, through reliance on market forces and a self-adjusting royalty system.
- Develop, in partnership with industry, a clear vision and focus for energy research to achieve Ministry goals and provide future development opportunities. Emphasis to be placed on results that meet economic objectives.
- Assess/consolidate all energy research efforts.

Goal #2: Achieve greater efficiency and productivity.

Strategies:

Five strategies will be pursued to achieve this goal. They are as follows:

1. Implement Ministry's organizational restructuring.

2. Continue review of all legislation and regulations to streamline regulatory process, and eliminate duplication and unnecessary documentation.

3. Assess the feasibility of alternative financial vehicles. This includes re-assessing cost sharing between Ministry and industry, and assessing the potential for using revolving funds/trust funds.

4. Re-engineer business processes, including simplification initiatives such as royalty simplification. Specifically, the Ministry will:

- Eliminate tasks of lower value/importance. The Ministry will undertake an ongoing review of its involvement and interaction with industry to remove administrative burdens.
- Improve the use of technology/automation in the Ministry.
- Review common activities performed across the Ministry with a view to centralizing functions to achieve cost efficiencies. Priority activities now being examined are: computer system maintenance/development; administrative functions; legal services; communications, and information collection.

5. Assess the merits of a "one window" approach for Energy Ministry information. Information will be consolidated into a minimal number of databases, managed and coordinated by one group and available across the Ministry.

Actions:

- Allow resource development to proceed in the public interest by conducting fair, effective and efficient regulatory processes.
- Operate a simplified, accessible administration and be open and accountable to, and collaborative with, stakeholders.
- Involve stakeholders/clients in assessing the Ministry's program requirements.

Implications of Key Program and Policy Changes

The three-year budget reductions identified in the Business Plan will be achieved through discontinuing of lower priority activities, restructuring higher priority activities, and rationalizing activities between the Department of Energy and the Alberta Energy and Utilities Board. The Ministry is committed to ensuring an orderly transition to a lower-level of funding. This will be achieved by the eight strategies which have been launched. When completed, the strategies will identify the complete details of the Ministry's 23% budget reduction. The Ministry will ensure that its budget reductions will be met within the timelines identified in the Business Plan. The Ministry will adopt a business-like approach to its management and operations. It is committed to identifying budgetary reductions beyond those identified in the Plan, as work progresses on completing the eight strategies.

Details of Identified Reductions

Ministry Overview

Budget

In 1989-90 the Ministry of Energy had a budget of $129.1 million. In the current 1993-94, fiscal year, the budget has been reduced to $94.8 million. During the period covered by this Business Plan, the Ministry's budget will be reduced to $73 million, a 23 % reduction over three years and a 43% reduction in the budget it had in 1989-90.

For the Department of Energy, the reductions will be phased-in as follows: in fiscal year 1994-95, $4.6 million, in fiscal year 1995-96, $4.3 million, and in fiscal year 1996-97, $7.7 million. Also, Heritage Fund spending of $750,000 will be eliminated. For the Alberta Energy and Utilities Board, the reductions will be phased-in as follows: in fiscal year 1994-95, $1 million; in fiscal year 1995-96, $1.4 million; and in fiscal year 1996-97, $1.7 million.

Staffing

During the period covered by the Business Plan, the Ministry's staffing level will be reduced by 281 FTEs. By 1996-97, the Ministry, including the Alberta Energy and Utilities Board, will have a staffing level of 1,114 FTEs. In fiscal year 1994-95, 29 FTEs will be eliminated in the Department of Energy and 41 FTEs eliminated in the Alberta Energy and Utilities Board. The remaining 211 FTEs will be eliminated over the next two years, as progress is made in implementing the new organizational structure and other strategies outlined in the Plan.

Implications for Department of Energy

- $7.7 million reduction achieved through completion of Mineral Revenues Information System and re-engineering of mineral royalty business procedures.
- $1.1 million reduction in energy efficiency programs. This reduction in funding will result in the elimination of energy audits, education programs and toll-free information line. Discussions are under way with private sector and not-for-profit organizations to deliver these discontinued activities. A policy development capability in energy efficiency will be maintained in the Department.
- $1.2 million reduction in coal research. The reductions reflect a shift in priorities to research into new technologies that improve the competitiveness of Alberta's coal.
- $3.3 million reduction in oil sands research projects. Research will be refocused to emphasize partnerships with industry and applied research that meets economic objectives.
- $2.0 million reduction achieved through completion of Ministry restructuring. Reductions include $1.4 million in finance and administration costs achieved through realignment of functions and greater efficiency. Further reductions are anticipated as the Ministry restructuring is implemented.
- $700,000 in reductions will be achieved through regulatory intervention activities and associated administrative costs.
- Completion of $750,000 Heritage Fund budget for the Southwest Alberta Renewable Energy Initiative (SWAREI). Any further funding will be reallocated from within the Department's General Revenue Fund appropriation.

Implications for Alberta Energy and Utilities Board

- The regulatory and organizational reviews now under way are expected to decrease or modify standard activities, resulting in cost savings and lower expenditures. It must be noted that the shared funding arrangement with industry will mean that the Board funding from industry will also decline for a total budget reduction of over $ 8 million by 1996-97.

Expected Results and Performance Measures

Expected Results

As a result of implementing program and policy changes, the Ministry anticipates:

1. Maximizing the value of Alberta's energy and mineral industries, resulting in greater benefits to Albertans; and

2. Improving the efficiency and productivity of Ministry processes and services.

Performance Measures

Success in achieving Ministry goals will be evaluated by comparing performance levels to predetermined benchmarks, including comparisons with equivalent organizations. Managers will be expected to evaluate the cost of services being provided relative to the value of the outputs. This will include:

- Analyzing the amount of administrative resources (dollars/FTEs) provided relative to the value of dollars/FTEs allocated to non-administrative programs.

- Analyzing success of oil sands and energy research in terms of additional investment generated in provincial oil sands, coal and hydrogen projects (success to be measured in dollars and employment).

- Analyzing dollars recovered for each dollar of audit activity, as well as the effects of regulatory decisions on royalty income and producer net-backs.

- Evaluating reduced costs of regulatory compliance to industry and the removal of disincentives to industry.

Appendix

Business Environment

I. Economic, Political and Technological

Economic

- Alberta's energy industry accounts for: 69% of Alberta's exports ($11 billion); 28.4% of the Gross Domestic Product; and between 1/4 and 1/3 of direct/indirect employment.
- Alberta accounts for almost three-quarters of all types of energy produced in Canada. Alberta has about 85% of our country's conventional oil and gas reserves and 57% of its coal reserves. Our oil sands contain more oil than that found in Saudi Arabia.

Political

- There will be greater pressure for governments to be accountable, open and responsive and to use collaborative processes to deal with issues.

Technological

- Advances in technology for resource exploration and production will provide a competitive edge.

II. Environment Restraints

Land Access Issues

- Environmental constraints and competing land uses from forestry, agriculture, tourism and wildlife interests will result in increasing pressure for restrictions on land access for energy and mineral resource development. Access to land is fundamental to resource development. Governments, industry and the public will need to be collectively responsible for a balanced approach to development and environmental protection.

Environmental Impact Issues

- Environmental issues present an opportunity for government, industry and the public to work together for the effective, orderly and environmentally responsible development of our natural resources. Clearly, the Clean Air Strategy for Alberta initiative provides a model for co-operative action.

III. Market Environment and Supply Developments

Oil and Gas

- The world oil markets will experience commodity price cycles driven by the weather, economic activity and supply additions. Occasional price shocks would result from Middle East political disruptions and/or failure of OPEC to manage its supply.

- Demand for Alberta natural gas is likely to increase in the context of a fully integrated North American gas market.
- Constraints on oil pipeline capacity leaving Alberta will continue to depress oil prices until new oil pipeline infrastructure is brought on stream.

Electricity

- Revising the Electric Energy Marketing Act (EEMA) will challenge all Albertans. The Ministry's goal is to have a system that is efficient and fair.

Coal

- No significant incremental coal production is expected.

Oil Sands

- Cost-reducing breakthrough technologies are needed if oil sands/bitumen production increases are to offset the longer-term decline in conventional crude production in Alberta. The Syncrude Project will likely propose a significant expansion program and will acquire at least one new lease.

IV. Government Operations

Government's Role

- Government will become a facilitator and coordinator, working with industry to ensure markets work more effectively.
- Oil and gas producers and associations will continually put pressure on the government to reduce royalties.

Ministry's Role

- Continuation of deregulation will shift the focus of the Ministry. The public interest is best served by clear and concise regulations. The Ministry's role will be to ensure that conditions exist for a well functioning marketplace. The emphasis will be to eliminate disincentives that hinder industry's ability to find and develop Alberta's natural resources or undermine its competitiveness. Over the next three years the Ministry will be required to take on a stronger advocacy role vis-a-vis other governments to safeguard Albertans' interests as resource owners.

Integration of Services

- Ministries will have to function in a coordinated, efficient manner. Planning will have to be done on a Ministry-wide basis and in harmony with other government departments.
- Functions within the Ministry will be rationalized and duplication eliminated.

Organization

- More efficient organizational structures and new technologies could lead to new opportunities for highly skilled staff within the Ministry.
- Government budget constraints will require reductions in operational costs and an increasing emphasis on user pay.